Philippines. Interdepartmental committee for the preparation of the four-year development plan.

FOUR-YEAR DEVELOPMENT PLAN

FY 1971-74

(Adopted by the National Economic Council)
26 June 1970

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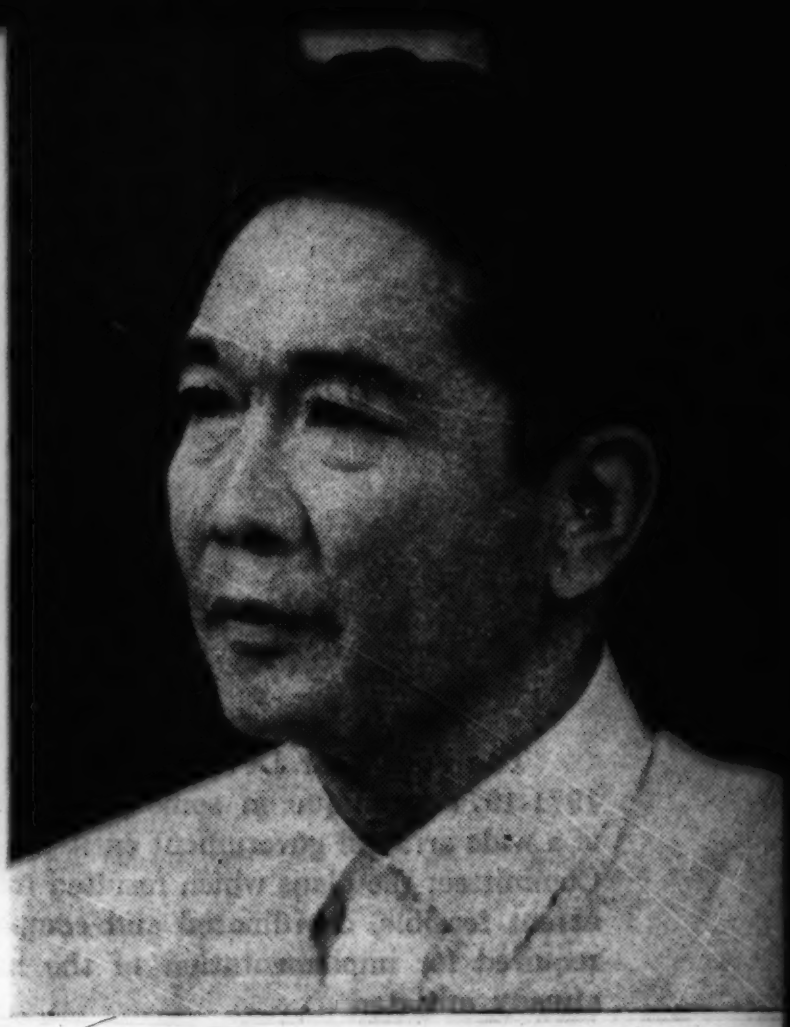
MESSAGE

REPUBLIC OF THE PHILIPPINES
OFFICE OF THE PRESIDENT



The presentation to the nation of this new Four-Year Development Program, FY 1971-1974, is a historic privilege for me. I was given the rare opportunity of presenting the Program for FY 1967-1970. And now, once again, I am given the honor of leading our people in the second phase of the integrated and comprehensive development program of the Philippines.

The progress made under the first Program has been impressive and gratifying. The people and the Government can be justly proud of that achievement. However, we cannot afford to be complacent. Every Filipino needs to meet the challenge of the crucial years ahead with firm and redoubled determination.

Our new development program envisions targets that will require immense efforts to mobilize our people, resources and Government towards sustained economic growth and development.

We have moved far in the first Program. God willing, we shall move farther in this second Program.

FERDINAND E. MARCOS
President of the Philippines

FOREWORD

The Four-Year Development Plan of the Philippines for Fiscal Years 1971-1974 is unique in some respects: it is the product of the thinking of a wide array of government entities represented in an Inter-Departmental Committee; the plans which resulted from this exercise are, to the maximum extent feasible, coordinated and comprehensive; and the planning process required for implementation of the national plan has been defined and already initiated.

In developing this Plan, the Inter-Departmental Committee was concerned not only with the formulation of plans for optimum development, but also with coordination of the activities of the various levels of government.

Day-to-day operations of government are likely to be haphazard unless long-range goals and objectives are clearly established. Immediate actions or short-range plans should therefore be based on a broader set of long-range goals. This development plan documents such goals.

It is imperative that all the elements of the national plan be documented; that the relationships among them be identified; and that their total impact on the country be thoroughly considered. The Plan for FY 1971-1974 also is intended to serve these purposes.

The publication of this Plan, therefore, will serve to advise and inform the citizens, the government agencies and their respective officials of the needs, the prospects, and the plans the Philippines has set for itself in the years to come.

PLACIDO L. MAPA, JR.
Director-General
Presidential Economic Staff &
concurrently Acting Chairman,
National Economic Council

1 July 1970

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ERRATA ON 1ST PRINTING OF THE FOUR-YEAR DEVELOPMENT PLAN
Distributed on August 17, 1970

AGE NO.	
13	Par. 3 line 2 "expert" should be <u>export</u>
19	Table III-1-3: B-Agriculture 1st column 1969 "54.1" should be <u>34.1</u>
29	Table III-2-2: under Project Category column 1. Water Resources "Dev." should be <u>Development</u>
42	Table III-3-2: TRADE "CAP" (SURPLUS) should be TRADE <u>GAP</u> (SURPLUS)
49	Table III-3-6: Under FY 1970 "131.9%" should be <u>31.9%</u>
53	"Sewing" Sewing should be <u>Singer</u> Sewing
54	Par. 4 line 5 "annual." <u>.</u> should be deleted
	Par. 5 line 4 "renewal" should be <u>renewed</u>
55	Par. 3 line 4 "markins," should be <u>markings</u>
	Par. 4 "below:" should be <u>in page 56</u>
57	Par. 2 line 2 "The" should be <u>This</u>
58	Par. 3 line 2 "it those" delete <u>it</u> and "those" should be changed to <u>these</u>
61	Par. 1 line 4 "Philippine" should be <u>Philippines</u>
	Par. 3 line 9 "The" should be <u>These</u>
66	Par. 4 line 7 "production" should be <u>population</u>
76	Table III-6-2: Col. 7 Sectoral "employ-" should be Sectoral <u>employment</u>
80	After (6) Training of Technicians, another number <u>(7) Price Support</u> should be added.
86	Last line "formal" should be <u>format</u>
90	Par. 2 lines 3 and 4 "intro-tion" should be <u>introduction</u>
92	Par. 4 "five" aspects: should be <u>six</u> aspects:

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E NO.

02 Table IV-1-3: No. 6. "Titay Valley, Zamb. Sur" should be Titay Valley Zamboanga del Sur

No. 11. "San Isidro-Claver, Sur Norte" should be San Isidro-Claver Surigao del Norte

104 Table IV-1-3: No. 13. "San Isidro-Claver, Sur. Norte" should be San Isidro-Claver, Surigao del Norte

No. 17. Ditsan "n" Ramin, delete n

105 Table IV-1-3: Last column title "Year Total Four" should be interchanged to Total Four Years

113 Par. 3 line 5 "landing" should be lending

135 Table IV-2-7: Non-Bank Financial "Insts," should be Institutions

138 Par. 2 line 2 "1938" should be 1968

146 Table IV-3-1: add in col. 4 FY 1973-1974

147 Table IV-3-2:
1. Rolling Stock "Rqmts" should be Requirements
6. "Misc." should be Miscellaneous

Add Footnote: 1/ See next page for physical goals.

169 Table IV-5-1: Radio "Sta" Equipment should be Radio Station Equipment

177 Par. 2 last line "reas." should be areas.

184 Par. 3 line 4 add every after organized and before year

218 Par. 1 line 7 add the before On and after other hand line 9 "of" should be to

220 2nd line from the top add the word pad after the word export

230 Table V-1-"3" should be Table V-1-2

1st line letter (c) "col-" should be collection

252 Lines 7 and 8 from the top "coor-nation" should be coordination

SECTION I

SUMMARY OF THE FOUR-YEAR DEVELOPMENT PLAN, FY 1971-1974

SECTION I

SUMMARY OF THE FOUR-YEAR DEVELOPMENT PLAN, FY 1971-74

The following is a summary of the Four-Year Development Plan for the Philippines covering Fiscal Years 1971-1974. The Plan was prepared by an Inter-Departmental Committee under the Chairman of the National Economic Council and was approved by the Council on June 26, 1970. In view of the possible changes in the constraints to planning, this Plan will be reviewed and revised on an annual basis.

1. Basic Targets

The basic target of the Four-Year Plan is an increase in Gross National Product from its FY 1969 level of ₱27,783 million to ₱36,308 million in FY 1974, both figures at constant FY 1967 prices. This represents an average annual growth rate of 5.5 percent and a growth in real per capita income of about 2 percent annually. The low average growth target compared to the accomplishments during the past four years is due to the slowing down of the economy in FY 1970 and FY 1971 (growth targets during this period are 5 and 4.5 percent, respectively). After FY 1971, the growth of the economy is expected to accelerate, reaching 6.5 percent in FY 1974.

These output targets will require levels of fixed investments averaging 19.7 percent of GNP over the four-year period. At the same time, National Savings are expected to rise from 17.5 percent of GNP in FY 1970 to 19.5 percent in FY 1974.

These targets are modest compared to the recent economic performance. Over the last four years the annual growth of real GNP was well over 6 percent. In FY 1969, the investment rate reached 21.2 percent. Also, the projected rates of National Savings assume an increase from the average low level of 16.6 percent in FY 1968 and FY 1969 to 19.5 percent in FY 1974. The basic targets and comparisons with recent performance are shown in Tables III-1-1 to III-1-4.

2. Agricultural Plans

The main productive sectors that will receive government support are agriculture and industry. In agriculture, the goals are: to increase domestic consumption of cereals, plant and animal proteins; and to maximize the surplus available for export. The overall target is to increase output by 6.25 percent annually. This will maintain the share of agriculture at approximately 34 percent of Net Domestic Product. The major areas of

agricultural development are crop production, livestocks, fishery and forest products.

Crop production includes both food and commercial crops, the most important in the former category being the staples — rice and corn; and in the latter, the export crops — copra, sugar, tobacco and abaca. In the past, the most successful part of this program was the much-publicized breakthrough in rice production. What must be done now is to develop the infrastructure necessary to spread that breakthrough beyond the farm, for example, in grain storage and marketing facilities, as well as in measures to further increase production, such as irrigation and farm extension activities.

The target for food crops is to raise the sufficiency ratio (the ratio of production to per capita consumption requirements) from around 85 percent in 1969 to 95 percent by 1974.

With respect to commercial crops, measures are being undertaken to increase the productivity of sugar and coconut land and encourage the cultivation in a commercial scale of new crops such as bananas, sorghum, soybeans and perhaps oil palm. The Plan calls for raising coconut output by 3.5 percent annually, sugar by 3.8 percent per annum, and fruits and vegetables by 6 percent per annum.

Livestock production is aimed at alleviating protein deficiency in the Philippines. Priority in policy measures will be given to the following: control of pests and diseases, conservation and improvement of livestock through better breeding methods and feeds, and dairy development. There also will have to be more investments in slaughterhouses, cold storage, transport, and in processing and marketing facilities. It is hoped that the completion of the facilities of the Greater Manila Terminal Food Market (GMTFM) will contribute towards the improvement of the marketing and standardization of livestock products.

For livestock development, the target is to raise the ratio of meat production to per capita consumption requirements from an estimated 45 percent in FY 1969 to 64 percent in FY 1974. For milk, the Plan calls for maintaining the current ratio, i.e., the production growth should at least keep up with demand.

Considering the extent of Philippine marine resources, fish production should be a major industry. Production targets for this sector call for an average annual growth of 8 percent, with most of the growth to be contributed by commercialized off-shore fishing and fish-pond production. This should raise the sufficiency ratio from an estimated 71 percent in FY 1969 to 93 percent by FY 1974. Thus, by the end of the Plan period, imports of fish products should be negligible. In order to achieve these targets, large investments will have to be made in fishing vessels and equipment, fish-ponds, and in complementary activities such as fish processing plants. On the part of the public sector, investments in wharves, and in storage and marketing facilities are necessary.

Forest products have been a principal source of foreign exchange earnings. The forest development program aims at maximizing and sustaining forest yield through forest protection, reforestation, and watershed management. Targets call for expanding wood production at a low rate of about 2 percent per annum over the Plan period.

The burden of actually carrying out the targets for agriculture must rest on the private sector. The public sector's role is that of providing the necessary incentives and supporting infrastructure. These include: the provision of more liberal credit; the establishment of an efficient marketing system not only in the metropolitan areas but also in the provinces; the construction of necessary facilities such as irrigation, feeder roads, etc.; the provision of effective assistance in production and marketing, especially for export products; and the continued implementation of the land reform program.

3. Industrial Plans

The other major area which will receive government support is the industrial sector, which covers mining and manufacturing. During the Plan period, value added in manufacturing is expected to grow by an average of 6.25 percent per annum and in mining, by 18.5 percent. In order to achieve these targets, total fixed capital formation of about P8,114 million, in constant 1967 prices, will be required for mining and manufacturing over the four-year period. This represents 30 percent of the total gross fixed capital formation.

Direct government assistance to industry will be concentrated in preferred industrial activities as listed by the Board of Investments (BOI). The BOI formulates an annual Investment Priorities Plan which lists areas where incentives will be granted and evaluates applicants for registration as preferred enterprises. The latest of these plans is the Third Industrial Priorities which lists a total of 90 preferred activities. The new type of industrial structure desired is exemplified by the 59 industries which were included primarily because they make maximum use of indigenous materials. The export promotion drive will be helped by the specific listing of 32 industries with substantial exports. The priority industries are listed in Tables IV-2-2 and IV-2-5.

The industrial plan aims at the generation of integrated industrial complexes in at least three areas. A food production complex will center around the meat canning industry whose main source of raw materials, livestock, is also listed as a preferred area. A metal complex is encouraged by the inclusion as preferred areas of investment the processing of all the major minerals which are presently produced. The third industrial complex is in intermediate petro-chemical products. The objective is to make possible eventual backward linkage with the petroleum refining industry, by creating an intermediate market large enough to make economies of scale possible.

4. The Public Sector

The public sector program aims at a significant increase in the level of public investment as well as at a change in the structure of its financing. Heavy utilization of external financing is assumed during the Plan period.

Under the Plan, the public sector's capital formation will have an average annual level of ₱1,160 million, at 1967 prices. Compared to the level of about ₱633 million in FY 1969, public contribution to gross fixed capital formation will increase to ₱1,348 in FY 1974, representing an average annual growth of 16.5 percent. About half of these expenditures will go to transportation, mainly for the construction of roads and bridges. Large outlays are also planned for water resources development, inclusive of irrigation (17 percent of the total), and power (11 percent). Expenditures by major project category are shown in Table III-2-1.

In the highway program, the aim is to improve the national transportation network. The priorities set in the recently completed transport survey, a study financed by the UNDP and administered by the World Bank, will be followed as closely as possible in the implementation of projects. In irrigation, about 54 percent of the planned amount in FY 1971-1974 represents expenditures for the Upper Pampanga River irrigation project and 7 percent for pump irrigation projects. The remaining 39 percent will be for smaller gravity irrigation systems, including the Cotabato projects being financed by the Asian Development Bank. There will be a slowing down in the elementary school-building program since a large part of the backlog has already been eliminated. For all the other sectors, the planned investments would be more or less at about the same levels as in the past.

Emphasis will also be given to engineering and feasibility studies in order to accelerate the pipeline of projects for external financing. Compared to a level of about ₱2 million in FY 1969 (in constant 1967 prices) the annual amount earmarked will increase to ₱3 million in FY 1971 and to a higher level of ₱12 million per year in FY 1972 to FY 1974.

In order to finance the public investment program, it will be necessary to continue the achievements in improving the tax collection efficiency and to increase the tax burden. New tax proposals are being made in order to close the financial gap. Without new taxes, even assuming that the current expenditures of the government are compressed in real terms, it will not be possible to provide the infrastructure facilities which are needed.

To meet the present need for accelerated economic growth, the administrative machinery will be reorganized in order to provide an organizational framework for an effective development and formulation of economic plans and goals, a coordinated implementation of action programs, and for a responsive statistical system to support economic planning and evaluation of program execution.

SECTION II

THE NATIONAL PLAN: GOALS AND OBJECTIVES

1. Growth Under the Last Plan and Basic Problems of the Economy
2. The National Plan: Objectives and Principles

SECTION II — CHAPTER 1

GROWTH UNDER THE LAST PLAN AND BASIC PROBLEMS OF THE ECONOMY

1. Growth Under the Last Plan (FY 1967-1970)

The Philippine economy has grown in recent years at a pace that is highly satisfactory, even by the standards set by an ambitious economic program. A review of the economic expansion and an identification of the problems of development processes are presented as an integral part of the Plan in order that the goals sought to be achieved during the four-year period, FY 1971 to FY 1974, can be better understood and appreciated.

The last plan covered fiscal years FY 1967 to FY 1970. The basic objective of this plan was to increase real per capita income at an average annual rate of 2.5 percent, as compared with the 1.5 percent growth rate achieved in the four-year period preceding the plan. In aggregate terms, this amounted to an average annual growth of 6.2 percent in real GNP, with annual growth rates progressively increasing from 5.8 percent in the first year. The growth was expected to be generated largely by manufacturing and mining, with agriculture growing at about 5 or 6 percent annually.

In the aggregate, actual performance exceeded targets for each year of the Plan, except for the current fiscal year (FY 1970). In FY 1967-1969, GNP increased at an annual rate of 6.3 percent. Estimates for FY 1970 indicate a GNP growth of only 5 percent.

The growth performance has been achieved with an investment rate of 21 percent and an average national savings rate of 18 percent. Although the developmental efforts were financed largely through domestic resources, the net capital inflow from abroad (measured in terms of the current account deficits) rose very rapidly.

These deficits have been financed largely by short-term borrowings which generated the present problems of debt servicing. It is due to this that the balance of payments gap has become the dominant constraint to future economic growth.

2. Basic Problems of the Economy

In spite of the progress attained under the previous Plan, the economy continues to be dualistic in nature. This problem can only be finally solved in the very long term. The present Plan continues to address itself to this problem. The immediate goal is to support a rising standard of living for the country's rapidly growing population. The progress attained

in the export and industrial sectors has not spread out to the agricultural sector. As a result, the portion of the population engaged in traditional agriculture, with its low income level, does not provide an adequate market to support an expansion in manufacturing activities. In the meantime, population is growing at the rate of about 3.5 percent a year.

One other major problem is substantial unemployment and underemployment. In October 1967, the number of totally unemployed persons was nearly 909 thousand or 7.7 percent of the labor force. The unemployment problem cannot be solved during the Plan period. At best, the target is to reduce the unemployment rate to 5 percent of the labor force in FY 1974.

The overall balance of payments deficit and the structure of the external debt have created the most serious set of economic problems that are likely to be faced over the next few years. The recent performance of the export sector was below the expected level. However, with the adjustment of the peso relative to the dollar under the floating rate system, it is expected that substantial improvements will be achieved. Efforts were made by the Central Bank to restructure the country's external indebtedness.

The efforts at solving the balance of payments difficulties have generated another set of problems, namely, that of rapidly rising prices. In the past decade, consumer prices remained fairly stable, the rise averaging only 4.5 percent per annum in FY 1960-1969. However, due to the *de facto* devaluation of the peso by about 50 percent on February 21, 1970, consumer prices have risen rapidly. It is projected that consumer prices will rise by 15 percent for FY 1970 and 7.5 percent for FY 1971.

The low standard of living, underemployment and unemployment, balance of payments difficulties, and rising prices are the major problems which this Plan is directed in solving.

SECTION II — CHAPTER 2

THE NATIONAL PLAN: OBJECTIVES AND PRINCIPLES

This Four-Year Development Plan, covering FY 1971 to FY 1974, has been prepared with a view to maintaining the past growth of the Philippine economy. It provides a set of coordinated policies and development strategies for achieving the targets which the economy will seek to accomplish within the Plan period.

The Plan contains the following elements:

(1) An estimate of the economic growth that is expected to result from the public investment programs and from the private sector's response to the proposed policy measures;

(2) A sectoral investment program covering the fixed capital formation projects undertaken directly by the government (most in the form of infrastructures) and those undertaken by the private sector with government support;

(3) A section on the prospects for financing the Plan, in terms both of domestic resources and capital inflows from abroad; and

(4) A conceptual framework of the administrative requirements of the government for a more effective implementation of the Plan.

The Plan seeks to make operational the objectives of the economy, which are as follows:

(1) To achieve the maximum economic growth consistent with stability. This includes attempts to diversify and integrate production and exports within the constraints of the balance of payments and maintenance of monetary stability.

(2) To effect a more equitable distribution of income and wealth. This objective, however, must be balanced against the need to increase the share of investment in GNP. The choice is thus between current and future consumption.

(3) To minimize unemployment and underemployment, thus maximizing the utilization of the labor force. This will be

achieved through greater investments in human resources and incentives to production.

In order to achieve these objectives, certain basic principles should be observed. These principles have been embodied as far as practicable in the Plan.

(1) The government will take steps to enlarge and develop the middle class, prevent unwarranted monopolies, and reconcile conflicts involving the welfare of consumers, entrepreneurial incentives and the earnings of labor and vigorously pursue a program of increased labor productivity.

(2) Monetary, credit and fiscal policies will be employed to channel investible funds into their most productive uses; to maintain relatively stable prices and avoid inflation; and to encourage savings.

(3) Regional development will be undertaken in order to reduce the income gaps in the different regions of the country.

(4) Steps will be taken to restructure and provide continuing support to the educational system in developing the necessary manpower skills for economic development.

(5) The government will actively plan and promote the development of the agricultural sector in harmony with the industrial sector in order to achieve increased agricultural productivity and national self-sufficiency in the basic staples.

(6) The government will vigorously implement the constitutional policy of resource conservation.

(7) Every encouragement will be given to Filipino entrepreneurs to establish and operate basic and integrated industries essential to the objectives of accelerated economic growth; rationalize the use of imported raw materials, semi-processed goods, machinery and equipment; improve the quality and increase the value of exports; and provide greater job opportunities at better wages.

(8) Industries in accepted areas of priority will be accorded credit facilities, and the government financing institutions will grant priority to the satisfaction of the financial and credit needs of these industries.

(9) Every effort will be exerted to persuade and encourage private capital to invest in enterprises that can operate with maximum efficiency in providing quality goods and services using domestic raw materials at competitive prices in the national and foreign markets.

(10) Foreign investments will be welcomed in providing the financial gaps, and thus assist in the attainment of the development objectives of the Plan.

(11) International cooperation, compatible with the national interest, will be promoted to ensure understanding and collaboration particularly with other Asian countries.

(12) Efforts will be exerted to establish trade relations with as many countries as possible; foreign economic policy will strive towards diversification of the country's sources of imports and of markets for its export products.

SECTION III

THE NATIONAL PLAN: PROSPECTS FOR THE PHILIPPINE ECONOMY

1. The Over-all Framework
2. The Structure of Investments and Savings
3. Balance of Payments
4. Price Adjustments
5. Population
6. Employment Requirements

Section III — Chapter I

THE OVERALL FRAMEWORK

1. GNP Growth Target

Operating within a framework of foreign exchange constraints and internal adjustments to currency devaluation, the economy seeks to achieve optimum annual growth rate in FY 1970 to FY 1974 averaging 5.6 percent in real GNP, with Gross National Product, in constant FY 1967 prices, rising from ₱29.2 billion in FY 1970 to ₱36.3 billion by FY 1974. This average growth target is much lower than the average growth achieved in FY 1965-FY 1969. The slowing down of the economy in FY 1970 and FY 1971 (with GNP growth estimated at 5 and 4.5 percent, respectively) will bring down the average growth during the Plan period. From FY 1972, it is expected that the economic growth will begin to accelerate toward the same growth levels experienced during the FY 1965-FY 1969 period.

With the population growth gradually declining from the historic rate of 3.7 percent to 3.24 percent rate by FY 1974, per capita GNP will improve from ₱779 in FY 1969 to ₱841 by FY 1974. The rate of improvement in per capita GNP will average 2.2 percent for the Plan period.

Because of adjustments in the exchange rate, the main sectors responsible for growth will be largely export-oriented and minimally import-dependent activities. Consequently, mining output in value added terms will expand rapidly at an average annual rate of 17.7 percent during the Plan period. This growth will be realized on top of a significant increase registered in FY 1970 in response to high world prices, particularly for copper and nickel. Growth in manufacturing activities, being heavily import dependent, will be depressed during the period of adjustment but will pick up rapidly towards the later years of the Plan. An average 6.2 percent rate of increase is anticipated, rising from 1.9 percent in FY 1971 to 9.3 percent by FY 1974.

Likewise, agricultural production will continue to significantly outpace growth in population, with a rate of increase averaging 6.1 percent for FY 1971 to FY 1974. The complementary sectors to production will grow at an average rate of 4.4 percent in order to provide the necessary balance of services.

Agriculture will continue to dominate and will slightly increase its share of Net Domestic Product (NDP), from 34.1 percent in FY 1969 to 35.1 percent by FY 1974. Conversely, manufacturing output will contribute slightly less to NDP. Mining, because of the impetus for export, will double its share from 1.8 percent of NDP in FY 1969 to 3.7 percent by FY 1974.

Sectoral Share of NDP

	FY 1969	FY 1974
Net Domestic Product	100%	100%
Agriculture	34.1	35.1
Mining	1.8	3.7
Manufacturing	17.3	16.8
Others	46.8	44.4

2. **Consumption**

To sustain the growth in production, consumption expenditures will increase at a rate sufficient to absorb production increases while at the same time generate higher levels of domestic savings for investment.

Total consumption demand will expand by an annual rate of 5 percent, with private expenditures rising at a faster rate than public consumption expenditures. Such expansion will be at the low level of at 2.8 percent during the initial period and allowed to reach a 6 percent increase by FY 1974. The consumption rate (share of consumption expenditures to GNP) shall drop from 82.4 percent in FY 1969 to 79 percent by FY 1974.

In FY 1970, public consumption rose at a high rate amounting to 8 percent. From this high level of about ₱2,880 million at 1967 prices, public consumption will decline in FY 1971 and thereafter rise at the modest annual growth of 4 percent.

3. **Savings**

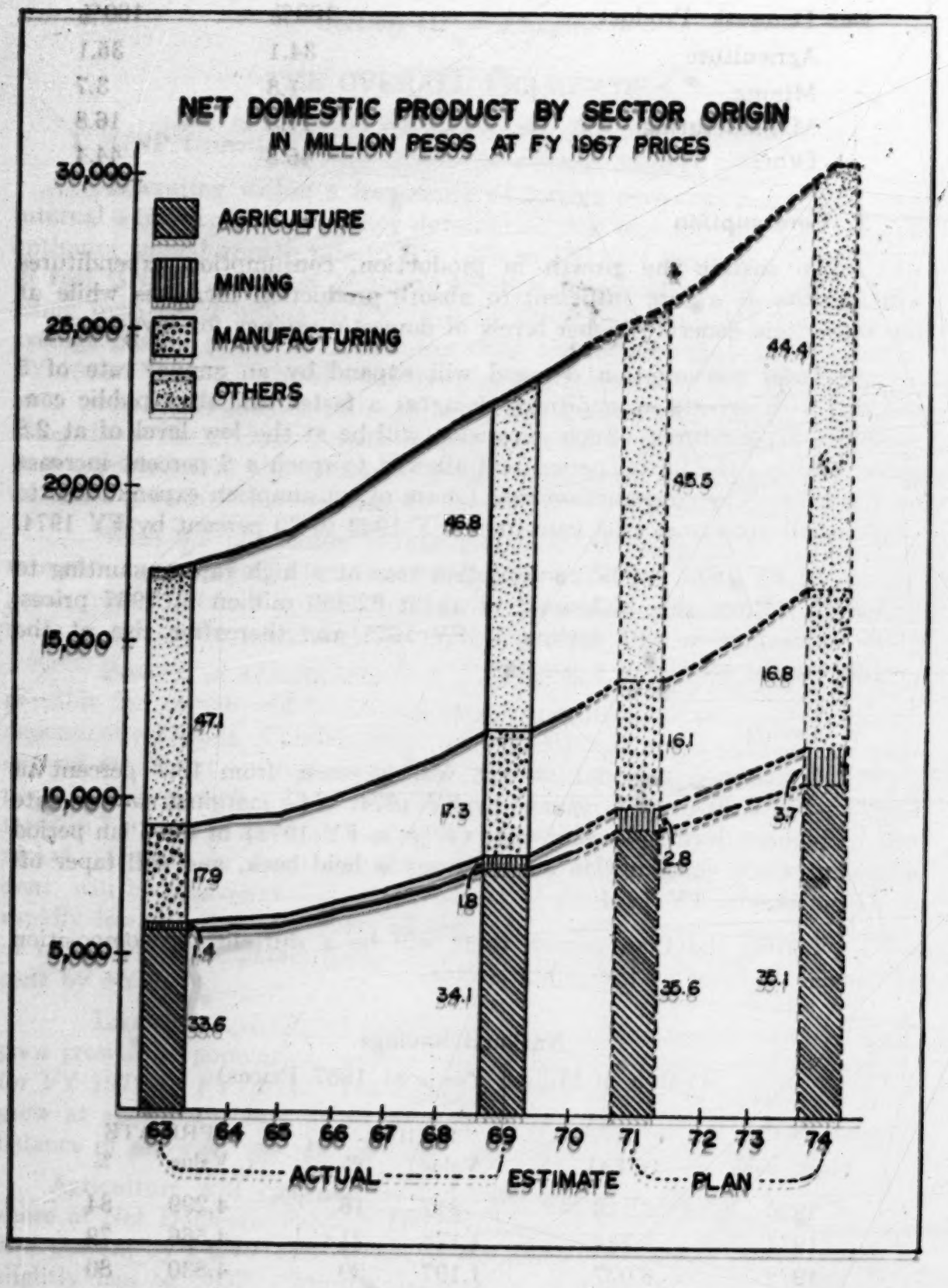
Conversely, national savings will increase, from 16.7 percent of GNP in FY 1969 to 19.5 percent by FY 1974. The marginal savings rate will be highest during the first year (47% in FY 1971) of the Plan period when growth in consumption expenditures is held back, and will taper off to 27 percent by FY 1974.

During the Plan period, there will be a shift in the composition of savings in favor of the public sector.

National Savings

(Value in Million Pesos at 1967 Prices)

Fiscal Year	TOTAL	PUBLIC		PRIVATE	
		Value	%	Value	%
1970	5,116	817	16	4,299	84
1971	5,744	1,178	21	4,566	79
1972	6,027	1,197	20	4,830	80
1973	6,536	1,283	20	5,253	80
1974	7,085	1,318	19	5,767	81


NET DOMESTIC PRODUCT BY SECTOR ORIGIN
IN MILLION PESOS AT FY 1967 PRICES
30,000
25,000
20,000
15,000
10,000
5,000
AGRICULTURE
MINING
MANUFACTURING
OTHERS
47.1
17.9
1.4
33.6
46.8
17.3
1.8
34.1
45.5
16.1
2.8
35.6
44.4
16.8
3.7
35.1
63
64
65
66
67
68
69
70
71
72
73
74
ACTUAL
ESTIMATE
PLAN

The foregoing savings structure assumes that the new tax measures proposed in Section V—Chapter I will materialize. Otherwise, the ratio will be reversed, i.e., the share of public savings in the total will be declining.

4. Investments

Gross Domestic Investment, in spite of a modest average annual growth of 5.8 percent, will still exceed national savings during the whole Plan period. The investment rate will be maintained at about 21.2 percent during the Plan period and shall be accompanied by a decline in the incremental capital output ratio from 4.2 to 3.0. The gap in savings and investment, however, is rapidly narrowed by increasing savings. The gap will be reduced from ₱712 million in FY 1971 to ₱612 million by FY 1974. This is a substantial improvement over FY 1969 and FY 1970 when the gaps were ₱1,685 million and ₱1,004 million, respectively.

5. Net Capital Inflow from Abroad

The investment-savings gap will be financed by a tolerable excess of import over export of goods and services (i.e., deficit in the balance of payments' current account). Total net inflow of external resources through import surplus will amount to ₱2,804 million (in 1967 prices) or $701 million for the four years of the Plan. This will be accompanied by a declining trade deficit which will reverse to a surplus of $30 million by FY 1974. The improvement in trade will mainly be due to an acceleration of exports at about 9.75 percent annual rate for the Plan period and to a compression of imports by 10 percent in FY 1971 over the FY 1970 high level and to a 5 percent annual growth rate in FY 1972 to FY 1974.

The gains in trade will be negated by the expected decline in surplus earnings from services and increases in investment income payments. Deterioration in net service incomes will be caused mainly by an expected drop in U.S. government spending, increased outflow of previously postponed remittances for royalties, film rentals and airline sales, and increased interest payments on borrowings.

Table III-1-1: Expenditure and Sector Origin of Product, FY 1969—FY 1974
(In million pesos at 1967 prices)

	1969	1970	1971	1972	1973	1974	Ave. Growth 1970-74	(% p.a.) 1970-74
Consumption	23,146	24,056	24,741	26,135	27,556	29,223	4.8%	5.0
Public	2,667	2,880	2,725	2,781	2,912	3,029	3.0	1.6
Private	20,479	21,176	22,016	23,354	24,644	26,194	5.1	5.5
Investments	6,322	6,120	6,456	6,815	7,228	7,677	4.1	5.8
Gross Fixed Capital Formation	5,898	5,682	5,999	6,333	6,717	7,152		
Public	633	857	938	1,020	1,332	1,348		
Private	5,265	4,825	5,061	5,313	5,385	5,804		
Net Change in Stocks	424	438	457	482	511	545		
Current Account Deficit	—1,685	—1,004	—712	—788	—692	—612		
Gross National Product	27,783	29,172	30,485	32,162	34,092	36,308	5.5	5.6
Net Factor Income Payments	317	512	504	560	616	668		
Gross Domestic Product	28,100	29,684	30,989	32,722	34,798	36,976	5.6	5.7
Financing of Investments:								
Investments	6,322	6,120	6,456	6,815	7,228	7,697		
Current Account Deficit	1,685	1,004	712	788	692	612		
National Savings	4,637	5,116	5,744	6,027	6,536	7,085		
Plus: Factor Income Payments	317	512	504	560	616	668		
Domestic Savings	4,954	5,628	6,248	6,587	7,152	7,753		
Parameter Values								
Investment Rate (% of GNP)	22.7	21.0	21.2	21.2	21.2	21.2		
Fixed Capital Formation	21.2	19.5	19.7	19.7	19.7	19.7		
Net Change in Stocks	1.5	1.5	1.5	1.5	1.5	1.5		
Capital/Output Ratio	3.3	4.3	4.3	3.6	3.3	3.0		
Savings Rate								
National	16.7	17.5	18.8	18.8	19.2	19.5		
Domestic	17.6	19.0	20.1	20.1	20.6	21.0		

Table III-1-2: GROWTH PARAMETERS
ACTUAL (FY 1963-69) AND PROJECTED (FY 1970-74)

	GNP GROWTH RATE (%)	INVEST-MENT RATIO[1]	CAPITAL OUTPUT RATIO[2]	AVERAGE SAVINGS RATE		MARGINAL-SAVINGS RATE		CONSUMPTION GROWTH		
				NATIONAL[3]	DOMESTIC[4]	NATIONAL	DOMESTIC	TOTAL	PRIVATE	PUBLIC
ACTUAL:										
FY 1963	4.7	16.6	2.4	16.9	17.3					
1964	4.7	18.3	3.5	19.6	19.9	76.1	76.2	1.4	0.6	7.4
1965	4.1	19.5	4.5	20.1	20.5	33.4	35.5	3.4	3.2	4.6
1966	5.9	19.4	3.3	22.1	22.5	55.4	56.2	3.3	3.1	4.7
1967	6.2	20.5	3.1	21.1	21.8	4.5	9.9	7.6	7.9	5.4
1968	6.3	21.3	3.2	16.5	17.6	—54.8	—43.9	12.4	13.2	6.6
1969	6.5	21.2	3.3	16.7	17.6	19.1	18.0	6.3	6.0	8.6
AVERAGE:										
FY 1963-1969	5.6	19.6	3.3	19.0	19.6	37.7[5]	39.2[5]	5.7	5.7	6.2
1963-1965	4.4	18.1						2.4	1.9	6.0
1965-1969	6.2	20.4						7.4	7.6	6.3
PROJECTED:										
FY 1970	5.0	19.5	4.2	17.5	19.0			3.9	3.4	8.0
1971	4.5	19.7	4.2	18.8	20.2			2.8	4.0	—5.4
1972	5.5	19.7	3.5	18.7	20.1			5.6	6.1	2.1
1973	6.0	19.7	3.2	19.2	20.6			5.4	5.5	4.7
1974	6.5	19.7	3.0	19.5	21.0			6.0	6.3	4.1
AVERAGE:										
FY 1969-1974	5.5	19.7	3.7	18.7	20.2	30.1	32.9	4.7	5.1	3.0

[1] Gross fixed capital formation as percent of GNP. Assumed change in stocks is 2% of GNP for FY 1970-1974; actual FY 1969 was 1.5%.
[2] Gross fixed capital formation over change in GNP, lagged one year.
[3] National savings as percent of GNP.
[4] Domestic savings as percent of GDP.
[5] Average marginal savings rates disregard figures for FY 1968 which are negative.

TABLE III-1-3: NET DOMESTIC PRODUCT BY SECTORAL ORIGIN, FY 1969—FY 1974

	1969	1970	1971	1972	1973	1974
A. Values in Million P at 1967 Prices						
Net Domestic Product	23,225	24,526	25,605	27,039	28,688	30,553
Agriculture	7,921	8,466	9,109	9,602	10,161	10,719
Mining	414	592	714	886	947	1,137
Manufacturing	4,020	4,035	4,113	4,301	4,691	5,127
Others	10,870	11,433	11,669	12,250	12,889	13,570
B. Percentage Distribution (%)						
Net Domestic Product	100.0	100.0	100.0	100.0	100.0	100.0
Agriculture	54.1	34.5	35.6	35.5	35.4	35.1
Mining	1.8	2.4	2.8	3.3	3.3	3.7
Manufacturing	17.3	16.5	16.0	15.9	16.4	16.8
Others	46.8	46.6	45.6	45.3	44.9	44.4
C. Growth Rates (% p.a.)	Average 1969-74					
Net Domestic Product	5.6	5.6	4.4	5.6	6.1	6.5
Agriculture	6.2	6.9	7.6	5.4	5.8	5.5
Mining	22.5	43.0	20.6	24.1	6.9	20.1
Manufacturing	5.0	0.4	1.9	4.6	9.1	9.3
Others	4.5	5.2	2.1	5.0	5.2	5.3

Table III-1-4: EXPENDITURE AND SECTORAL ORIGIN OF PRODUCT: FY 1963 TO 1969
(In Million Pesos at 1967 Prices)

	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968 1969[1]	Average % Per Annum 1963-65	Growth 1965-68
Consumption	16,624	16,849	17,418	17,989	19,361	21,770	23,145	2.4	7.8
Public	1,858	1,996	2,087	2,185	2,304	2,465	2,667	6.0	5.6
Private	14,766	14,853	15,331	15,804	17,057	19,314	20,478	1.9	8.1
Investments	3,956	4,465	4,819	5,039	5,477	5,951	6,322	10.4	7.3
Gross Fixed Capital Formation	3,324	3,837	4,248	4,490	5,034	5,556	5,898	13.1	9.4
Net Change in Stocks	632	628	571	549	443	395	424		
Current Account Deficit	—566	—358	—427	+ 62	—311	—1,638	—1,684		
Gross National Product	20,014	20,956	21,810	23,090	24,527	26,083	27,783	4.4	6.2
Net Factor Income Payments	79	82	110	134	220	338	317		
Gross Domestic Product	20,093	21,038	21,920	23,224	24,747	26,421	28,100	4.4	6.5
Financing of Investment									
Investments	3,956	4,465	4,819	5,039	5,477	5,951	6,322		
Current Account Deficit	—566	—358	—427	+ 62	—311	—1,638	—1,685		
National Savings	3,390	4,107	4,392	5,101	5,166	4,313	4,637	13.8	—0.9
Plus: Factor Income Payments	79	82	110	134	220	338	317		
Domestic Savings	3,469	4,189	4,502	5,235	5,386	4,651	4,954	13.9	1.1
Parameter Values:									
Investment Rate (%)	19.8	21.3	22.1	21.8	22.3	22.8	22.7		
Gross Fixed Capital	16.6	18.3	19.5	19.4	20.5	21.3	21.2		
Net Change in Stocks	3.2	3.0	2.6	2.4	1.8	1.5	1.5		
Capital/Output Ratio (1 year lag)	2.4	3.5	4.5	3.3	3.1	3.2	3.3		
Savings Rate:									
National Savings	16.9	19.6	20.1	22.1	21.1	16.5	16.7		
Domestic Savings	17.3	19.9	20.5	22.5	21.8	17.6	17.6		

[1] Adjusted to take into account the estimate as of February 1970 of the Balance of Payments for FY 1968-1969.

SOURCE: National Economic Council

Section III — Chapter 2

THE STRUCTURE OF INVESTMENTS AND SAVINGS

1. Gross Domestic Investments

The growth targets will be attained with moderate increases in investments. With import constraint most serious at the beginning of the Plan, gross domestic investment (GDI), is expected to drop from ₱6,322 million in FY 1969 to ₱6,120 million during the transition phase in FY 1970, and thereafter increase gradually at the rate of 5.5 percent in the first year to 6.2 percent in the last years of the Plan. The level will rise from ₱6,456 million to ₱7,697 million during the Plan period.

The incremental capital output ratio (ICOR) will gradually drop from the high rate of 4.2 during the adjustment year (FY 1970 and FY 1971) to 3.5 in FY 1972 and 3 in FY 1974. This reflects the strategy of development along the path of abundant factors, where investments will be induced and directed whenever possible into areas with maximum employment effect. This also reflects the industrial policy geared towards achieving more efficient utilization of existing production capacities.

2. Private Investments

Investment in the private sector will continue to dominate during the Plan period. However, it will account for less of GDI in succeeding years. Growing at an annual average rate of 4.8 percent in FY 1970-FY 1974, the share of private investment to GDI will drop from 86 percent in FY 1970 to 83 percent in FY 1974. With the inducement provided by the adjustment in the rate of exchange, the flow of private investment will be channeled into export oriented and labor intensive activities.

Out of the total private investments amounting to ₱23,558 million in FY 1971-74, about ₱8,114 million or 34.4 percent represents investments in the mining and manufacturing sectors, and about ₱2,096 million or 8.9 percent represents investments in agriculture. Out of the residual amount of ₱13,348 million, about ₱1,995 million constitutes changes in stocks and ₱11,357 million represents investments in other private activities such as construction, transportation, utilities, and other services.

3. Public Investments

The shift towards greater reliance on the public sector (national and local governments) for capital formation emanates from the need to accelerate infrastructure development required for sustained growth in subsequent years. This shift will enable the country to avail of loan financing from lending institutions abroad on softer terms (lower than

market interest rates and longer repayments period) normally available only on a government-to-government basis. This will be consistent with the external borrowing strategy.

Public investment will thus expand from ₱857 million in FY 1970 to ₱1,348 million by FY 1974, increasing at the average annual rate of 12 percent. The share of public investment in gross domestic investment will move from 14 percent in FY 1970 to 17 percent in FY 1974.

To the extent that financing is available to cover the cost of the programmed projects in the four-year infrastructure program, as shown in Tables III-2-1 and III-2-2, substantial progress will be made towards the attainment of the following objectives:

(1) To provide an integrated transport network for the efficient use of the land, sea, and air modes of transport. In addition to servicing the agriculture and industry sectors, the movement of population will be facilitated.

(2) To lessen the gap between the supply and demand of electricity by residential, commercial and industrial users. High priority is given to the electrification of new areas through the construction of new thermal and hydroelectric power projects, expansion of transmission lines, and the setting up of rural electrification cooperatives.

(3) To support further expansion of agricultural productivity by constructing pump and gravity irrigation systems. The expansion of irrigation facilities is a prerequisite to the attainment of relatively high growths in crop production which bring about food sufficiency.

(4) To continue the construction of flood control facilities in order to eliminate the yearly losses to floods.

(5) To improve and expand the telecommunications system to efficiently service both domestic and overseas needs.

(6) To construct the essential national buildings, schools, and hospitals as well as provide social housing to the low-income group.

(7) To provide funds for economic feasibility and preliminary engineering studies for major infrastructure projects in order to eliminate inefficiency and waste of funds in their implementation.

The public investment program is designed to provide the continuity and support to the ongoing activities covered in the previous program. During the Plan period, it involves a total expenditure of ₱4,638 million in constant 1967 prices. The difference between the total public investment and the infrastructure program is due to the capital formation expenditures of the local governments and the capital outlays incorporated in the general budget of the national government.

4. Savings Structure

The bulk of national savings will continue to be generated by savings in the private sector (households and business sectors). Private savings will increase at an average rate of 7.75 percent during the Plan years, rising from a level of ₱4,299 million in FY 1970 to ₱5,767 million by FY 1974. In spite of the significant gains, the share of private savings in the total national savings will drop from 84 percent in the base year to 80 percent by the last year of the plan in view of the increasing tax burden which transfers the savings from the private to the public sector of the economy.

The accelerating thrust in domestic savings will mainly be provided by the rapid improvement in public savings. Savings in this sector will expand at an average of 12.5 percent in FY 1970-FY 1974, increasing in the process the level of public savings from ₱817 million in FY 1970 to ₱1,318 million by the terminal year. This will be accomplished by depressing growth in current public expenditures and increasing revenues through new tax measures. Public savings will then account for 19 percent (compared to 14.5 percent in FY 1970) of national savings by FY 1974.

5. Investment-Savings Balance

Resources to meet capital formation will be generated through increasing levels of domestic savings. The domestic savings rate (share of domestic savings to Gross Domestic Product) will accelerate from 17.6 percent in FY 1969 to 21 percent by the end of the Plan period. This will be attained by raising domestic savings at an average annual rate of 8.4 percent, from ₱6,248 million in FY 1971 to ₱7,753 million in FY 1974. At this rate, domestic savings will exceed the investment level by ₱56 million in the last year.

However, in view of the net outflow in factor income payments, national savings[1] available for capital formation will be lower and continually short of investment requirements. Nevertheless, national savings rate (share of national savings to GNP) will still improve from 16.7 percent in FY 1969 to 19.5 percent by FY 1974. Accelerating at an annual average rate of 8.5 percent, the level of national savings will amount to ₱7,085 million by FY 1974. With national savings growing faster than investment (8.5 percent vs. 5.9 percent), the investment-savings gap will be rapidly declining. By FY 1974, 92 percent of investment (compared to 73 percent in FY 1969) will be accounted for by national savings.

The gap between national savings and investment will continually decline and will be financed by a net inflow of capital from abroad (current account deficit in the balance of payments).

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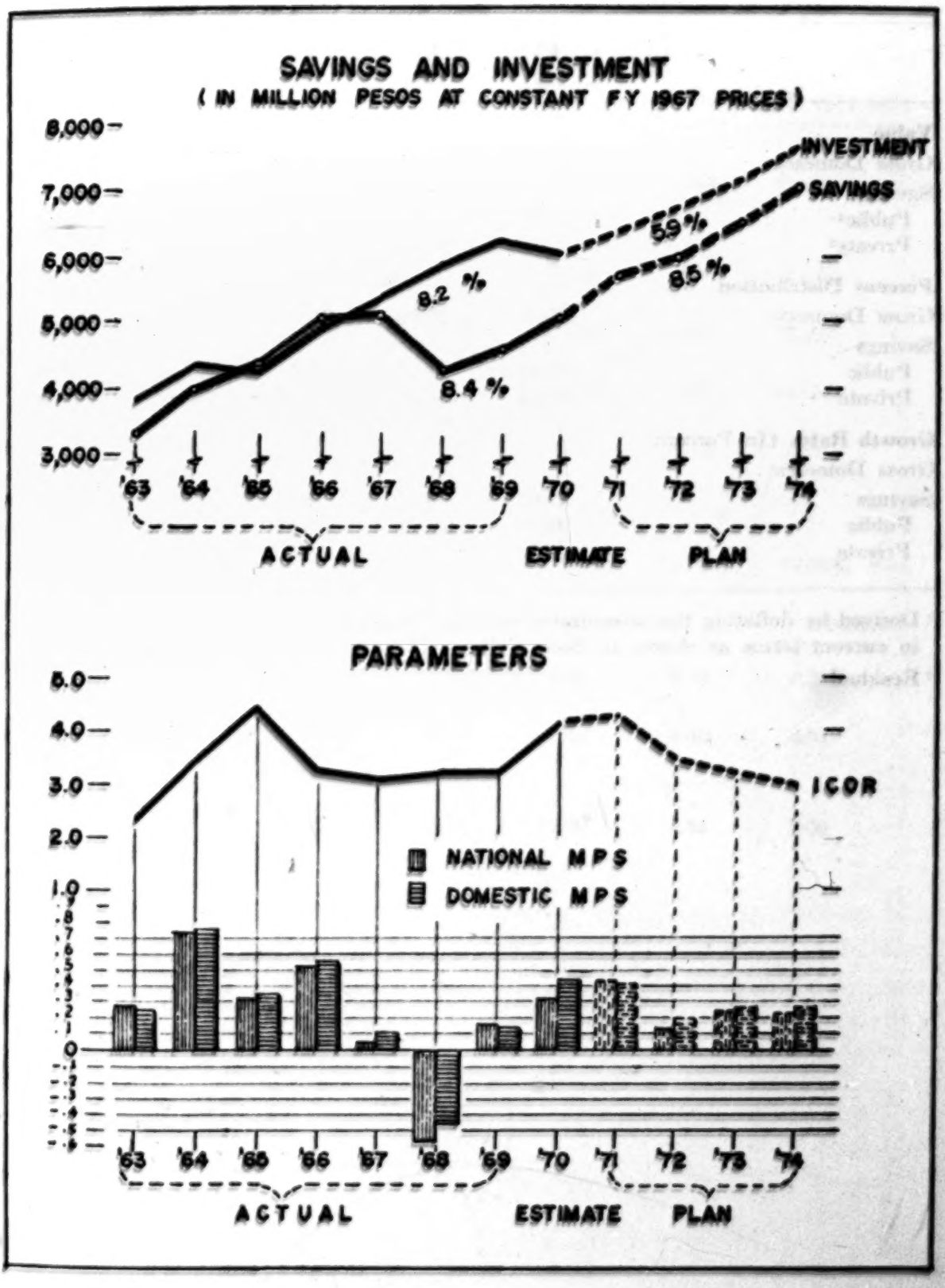
[1] Gross domestic savings minus net outflow of factor income payments.


SAVINGS AND INVESTMENT
(IN MILLION PESOS AT CONSTANT FY 1967 PRICES)
8,000
7,000
6,000
5,000
4,000
3,000
INVESTMENT
SAVINGS
8.2 %
8.4 %
5.9 %
8.5 %
'63 '64 '65 '66 '67 '68 '69 '70 '71 '72 '73 '74
ACTUAL
ESTIMATE
PLAN
PARAMETERS
5.0
4.0
3.0
2.0
1.0
ICOR
NATIONAL MPS
DOMESTIC MPS
'63 '64 '65 '66 '67 '68 '69 '70 '71 '72 '73 '74
ACTUAL
ESTIMATE
PLAN

GROSS DOMESTIC SAVINGS

(Values in Million Pesos at FY 1967 Prices)

	FY 1971	FY 1972	FY 1973	FY 1974	FY 1971-1974
Value					
Gross Domestic Savings	6,248	6,587	7,152	7,753	27,740
Public[1]	1,088	1,302	1,413	1,565	5,368
Private[2]	5,160	5,285	5,739	6,188	22,372
Percent Distribution					
Gross Domestic Savings	100.00	100.00	100.00	100.00	100.00
Public	17.41	19.76	19.76	20.18	19.36
Private	82.59	80.24	80.24	79.82	80.64
Growth Rates (In Percent)					
Gross Domestic Savings	11.02	5.42	8.58	8.40	8.36
Public	33.17	19.66	8.52	10.75	18.02
Private	7.25	2.42	8.59	7.82	6.52

[1] Derived by deflating the government savings (inclusive of revenues from new taxes) in current terms as shown in Section V — Chapter 1 by the deflator for GDCF.

[2] Residual

Savings and Investment

(In Million Pesos at 1967 Prices)

	FY 1971	FY 1972	FY 1973	FY 1974	FY 1971-1974
Domestic Savings	6,248	6,587	7,152	7,753	27,740
Net Factor Income Payment (Outflow)	(504)	(560)	(616)	(668)	(2,348)
National Savings	5,744	6,027	6,536	7,085	25,392
Investment Required	6,456	6,815	7,228	7,697	28,196
Savings Gap (Deficit)	712	788	692	612	2,804
National Savings					
Investments	88.97%	88.44%	90.43%	92.05%	90.06% Ave.
Growth Rates:					Average
Domestic Savings	11.02	5.43	8.58	8.40	8.35
National Savings	12.28	4.93	8.44	8.40	8.51
Factor Income Payments	(1.56)	11.11	10.00	8.44	7.00

Table III-2-1: FOUR YEAR PUBLIC INVESTMENT PROGRAM: FY 1970-71 TO FY 1973-74

ANNUAL INVESTMENT REQUIREMENT

(In Million Pesos at 1967 Prices [1])

	ACTUAL				TOTAL		
	FY 1969	FY 1971	FY 1972	FY 1973	FY 1974	FY 1971-74	Percent
Water Resources Development	136	127	187	269	209	792	17.1
Irrigation	44)	61	94	126	65	346)	8.1
Gravity Irrigation	)	17	4	3	3	27)	
Pump Irrigation	81	40	78	122	122	362	7.8
Waterworks	11	8	9	15	16	48	1.0
Flood Control & Drainage	—	1	2	3	3	9	0.2
Share Protection							
Transportation	276	381	384	521	665	1,951	42.1
Highways	223	249	269	438	621	1,577	34.0
Railways	—	58	36	25	13	132	2.9
Airports and Air Navigation	32	55	57	38	18	162	3.5
Portworks	21	19	28	20	13	80	1.7

Table III-2-1 (Continued)

	ACTUAL					TOTAL	
	FY 1969	FY 1971	FY 1972	FY 1973	FY 1974	FY 1971-74	Percent
Power	36	96	130	168	146	540	11.6
Power Plants and Transmission Lines	36	93	100	136	115	444	9.6
Rural Electrification	—	3	30	32	31	96	2.0
Telecommunications	20	18	54	89	110	271	5.8
Social Infrastructures							
Buildings	108	313	253	273	207	1,046	22.6
Schools	88	31	34	35	35	135	2.9
Hospitals & National Buildings	13	5	7	10	14	36	0.8
Housing [2]	—	16	15	15	14	60	1.3
Miscellaneous [3]	62	261	197	213	144	815	17.6
Preliminary Engineering	2	3	12	12	11	38	0.8
TOTAL PUBLIC INVESTMENT	633	938	1,020	1,332	1,348	4,638	100.00

[1] Peso figures as shown in Table III-2-2 deflated by estimated changes in the prices of capital goods as shown in Table III-4-1 and the foreign exchange figures converted into 1967 peso at the rate of ₱4/$1.

[2] Transfers from the national government and excludes lending programs on housing by the DBP, GSIS and SSS.

[3] Includes local government investments.

Table III-2-2: FOUR-YEAR INFRASTRUCTURE PROGRAM
FY 1970-1971 TO FY 1973-74
ANNUAL INVESTMENT REQUIREMENT
(In Thousand at current prices)

PROJECT CATEGORY		FY 1970-1971	FY 1971-1972	FY 1972-1973	FY 1973-1974	Total 4 Years
1. WATER RESOURCES DEVELOPMENT		₱130,365	196,056	198,073	206,090	730,584
		$ 6,551	17,949	39,196	23,933	87,629
1. Gravity Irrigation		₱ 55,700	81,200	96,600	49,800	283,300
		$ 6,000	11,600	17,800	9,400	44,800
2. Pump Irrigation		₱ 4,300	6,000	6,000	6,000	22,300
		$ 3,500	—	—	—	—
3. Water Supply		₱ 56,365	89,856	63,473	116 290	325,984
		$ 551	6,349	21,396	14,533	42,829
4. Flood Control & Drainage		₱ 12,000	15,000	27,000	29,000	83,000
		$ —	—	—	—	—
5. Shore Protection		₱ 2,000	4 000	5,000	5,000	16,000
		$ —	—	—	—	—
2. TRANSPORTATION:		₱320,264	385,261	483,547	645,625	1,834,697
		$ 42,131	39,022	60,693	77,069	218,915
1. Highways		₱235,600	322,810	412,760	580,140	1 551,310
		$ 22,900	19,428	50,272	74,885	167,485
2. Railroad		₱ 31,972	10,851	13,827	13,185	69,835
		$ 9 273	7,522	4,306	1,588	22,689
3. Airports		₱ 19,600	17,300	22,800	22,000	81,700
		$ —	—	—	—	—
4. Air Navigation Facilities		₱ 12,312	11,400	11,400	9,900	45,012
		$ 8,600	8,600	4,400	—	21,600
5. Portworks		₱ 20,780	22,900	22,760	20,400	86,840
		$ 1,358	3,472	1,715	596	7,141

Table III-2-2 (Continued)

PROJECT CATEGORY		FY 1970-1971	FY 1971-1972	FY 1972-1973	FY 1973-1974	Total 4 Years
3. POWER & ELECTRIFICATION:		₱ 50,040	81,490	100 270	94,060	325,860
		$ 22,370	20,350	27,370	23,410	93,500
1. Power Plants & Trans. Lines		₱ 35,040	65,490	80,270	74,060	254,860
		$ 17,370	15,350	22,370	18,410	73,500
2. Rural Electrification		₱ 5,000	16,000	20,000	20,000	61,000
		$ —	5,000	5,000	5,000	15,000
4. COMMUNICATIONS:		₱ 16,144	17 243	27,716	36,602	97,705
		$ 1,870	11,092	18,284	22,462	53,708
1. Telecommunications		₱ 16,144	17,243	27,716	36,602	97,705
		$ 1,870	11,092	18,284	22,462	53,708
5. SOCIAL INFRASTRUCTURE:		₱ 63,187	79,950	70,394	77,326	290,857
		$ —	5,339	5,460	5,571	16,370
1. National Buildings & Hospitals		₱ 8,700	13,050	18,000	25,000	64,750
		$ —	—	—	—	—
2. Prefab School Bldgs		₱ 46,040	21,791	22,859	23,427	114,117
		$ —	5,339	5,460	5,571	16,370
3. Misc. Public Works Projects		₱ 8,447	45,109	29,535	29,196	112,287
		$ —	—	—	—	—
6. PRELIMINARY ENGINEERING:		₱ 5,000	20,000	20,000	20,000	65,000
		₱ —	—	—	—	—
TOTAL		₱575,000 [2]	780,000	900,000	1,080,000	3,360,000
		$71,422	93,752	151,003	152,445	470,122

[1] Only the peso costs are included in the budget of the National Government.
[2] A reduction of ₱25 million is necessary in order to be consistent with the FY 1971 ceiling of ₱4,020 million in total outlay.

Section III — Chapter 3

BALANCE OF PAYMENTS

1. Export Trends

From FY 1963 to FY 1966, total exports increased from $628 million to $835 million, representing an average annual rate of 10 percent. The exports of sugar and coconut products, which accounted for slightly less than 50 percent of the total exports, increased at an average annual rate of 9 percent during the same period. All other exports rose at an average rate of 11 percent per annum.

Exports since FY 1966 have stagnated at slightly above the $800 million level. The apparent stagnation in exports has been due to the decline in FY 1966 to FY 1969 at an average annual rate of 7 percent of the shipments of sugar and coconut products. Disregarding these two groups of commodities, exports rose by 7 percent during the same period. The decline in the exports of sugar and coconut products was due to the prolonged drought the country experienced during that period rather than due to marketing constraints.

It is estimated that export receipts in FY 1970 will increase only towards the last two months. Aside from the time lag in taking advantage of the incentives to export due to the de facto devaluation on February 21, 1970, there was also a holding-back of exports till almost the end of FY 1970 due to the delay in the approval of the Export Tax. Until the tax finally became effective on May 1, 1970, exporters waited rather than cash-in their earnings on the basis of the export retention scheme due to the anticipated exchange rate differential. The effective rate under the export retention scheme was about ₱4.32/$1.00 compared to a minimum effective rate of ₱5.60/$1.00 under the export tax (both based on a floating rate of ₱6.00/$1.00).

On July 16, 1970, Congress also passed the Export Incentives Act (S. No. 143) which granted incentives to export producers, traders and service exporters registered with the Board of Investments. These incentives are in the form of tax credits on sales, compensating and specific taxes and duties on suppliers and raw materials, reduced income taxes, tax exemptions or credits on imported and domestic capital equipment and exemptions from export taxes. The bill also provides for measures to expedite export procedures and sets up an Export Assistance Fund to aid in the diversification of export products, to raise their quality and improve production

and marketing methods. The implementation of the Export Incentives Act is expected to accelerate the growth of export receipts.

With the uncertainties of the export tax removed, and with additional incentives under the Export Incentives Act, there are strong possibilities for increasing exports at the rate of about 8.5 percent per annum over the Plan period (see Table III-3-3).

This growth is attainable within the next few years through the expansion in mining output, particularly copper, nickel and iron ore concentrates, expansion in the production of raw sugar, and recovery in the output of copra and other coconut products. (A more detailed analysis of future export trends is contained in the notes to Table III-3-3.)

2. Import Trends

Despite the increased growth in projected exports, imports cannot be allowed to grow at its historical pace of 10 percent per annum (see Table III-3-5). On the other hand, too drastic a curtailment of imports would lead to a slowing down of the economy since approximately 45 percent of total imports consists of raw materials and another 40 percent consists of capital goods while only the remaining 15 percent constitutes consumer items. The economy thus remains highly vulnerable to a precipitous cut in imports. The import problem is in effect part of a larger problem, that of ensuring the maximum increases possible in output in the economy.

In FY 1970 the reduction of about 6.3 percent in imports will not likely cause a comparable reduction in production since the inventories of raw materials at the end of FY 1969 were at very high levels. For the period beyond FY 1970, imports are allowed to increase. The inevitable result of a further cutback in imports will be a drastic decline in the investment level and an increase in non-utilized capacities of manufacturing establishments which are dependent on imported inputs.

The minimum growth rate for imports that is consistent with continued growth of the economy is estimated at 5 percent annually in FY 1971-74. This rate may be attained by reducing the annual growth of consumer goods imports to 3 percent from its current rate of 8 percent, by gradually reducing the imported share of fixed capital formation from about 31.9 percent in FY 1970 to about 25.8 percent in FY 1974, and by allowing imports of industrial raw materials to grow at 7.25 percent annually (See Table III-3-6).

Stricter measures to qualitatively influence imports are incorporated in the existing Central Bank regulations. These measures are designed to make restrictions more effective. Unless an adequate external financing package can be arranged, the economy will have to live with these selective control measures for some time in order to insure that maximum use is made of the limited foreign exchange.

3. Trade Gap

On the basis of keeping imports down to a level of about $1,095 million in FY 1970 and FY 1971 and thereafter to a growth rate of 5 percent per annum and expanding exports at 8.5 percent per annum, the trade gap of about $300 million in FY 1969 and $140 million in FY 1970 should gradually narrow and eventually close during the Plan period.

The major Philippine exports are primary products and their production is highly dependent on unforeseeable and uncontrollable factors such as weather conditions. Furthermore, they are vulnerable to the price fluctuations that traditionally plague the international market for primary commodities. In the event of a shortfall in exports resulting in an annual growth of only 7.5 percent per annum in FY 1970-74, then imports would have to be compressed to a 3.625 percent annual growth in order to close the trade gap at the end of the Plan period. Since imports, as projected at an average annual growth of 5 percent, cannot stand further cut-backs without affecting economic growth, any shortfall in export receipts means increased borrowings.

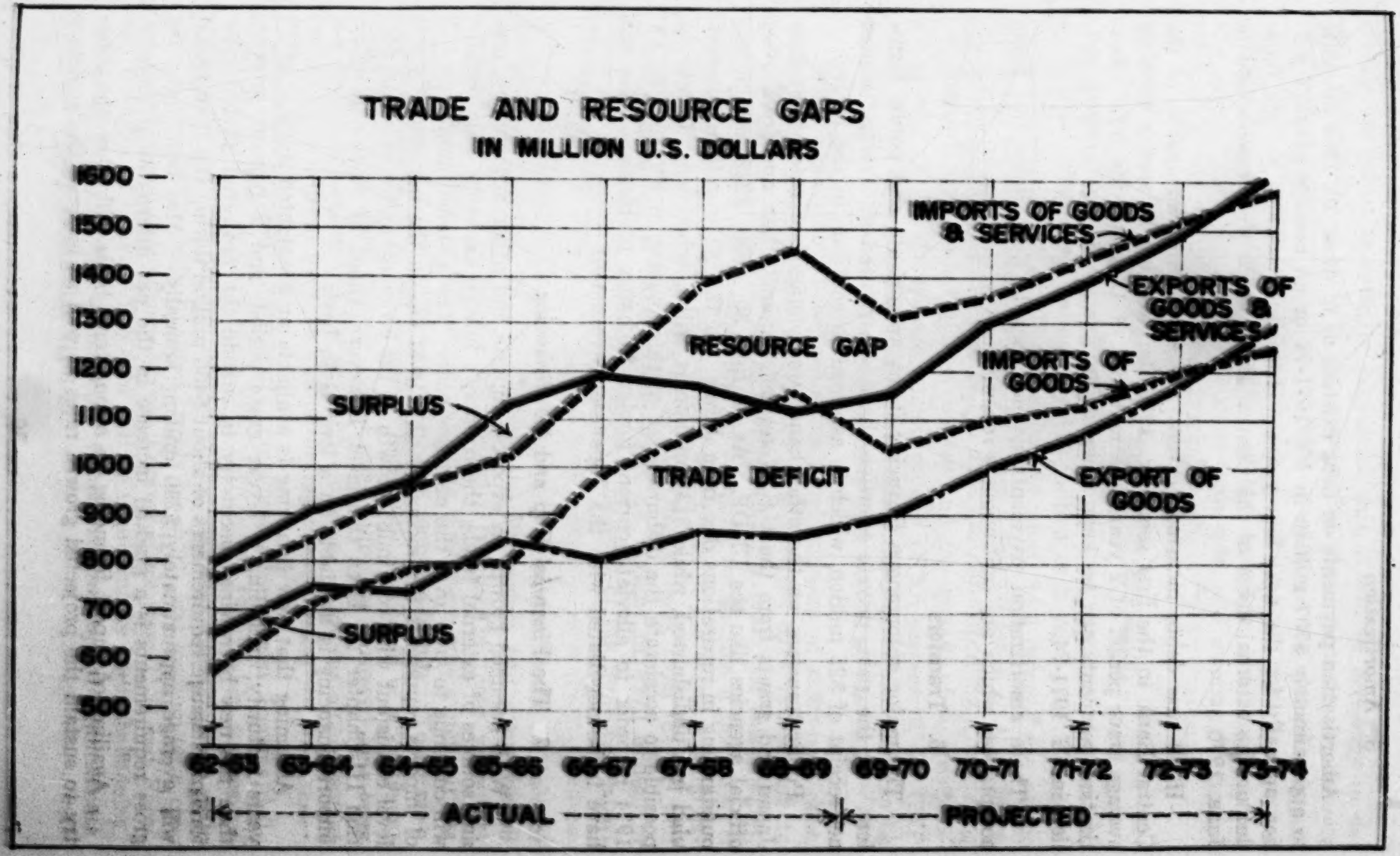
4. Invisibles

The other major elements of the net capital inflow, aside from the trade gap, are the invisibles, net services, and direct investment income payments. The projected service payments have been based on the external debt outstanding as of June 30, 1969 as shown in Table III-3-8.

Projected net services are composed of freight and insurance, net travel, government expenditures (both of the Philippines and foreign governments) and other services. The forecast shows a decreasing receipt balance on net services. This pattern is chiefly the result of anticipated disbursements for freight and insurance. In the past there has always been a net disbursement for this item, which is assumed to continue growing at approximately the same rate as exports. Unless priority is given in increasing the amount of merchandise carried on Philippine bottoms and freighters, it is likely that disbursements for freight will outweigh receipts from travel and the expenditures of foreign governments. With the floating rate, the expenditures of foreign governments, in foreign exchange terms, will decline.

Direct investment income payments consist of profit earnings on foreign investment, exclusive of the reinvested portions. The projected inflows on foreign investment are consistent with the past series which include only actual movements of foreign exchange.

The assumptions on invisible movements take into account the continued restriction on selected invisibles such as royalties, film rental payments, and travel disbursements.


TRADE AND RESOURCE GAPS
IN MILLION U.S. DOLLARS
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
IMPORTS OF GOODS & SERVICES
EXPORTS OF GOODS & SERVICES
RESOURCE GAP
IMPORTS OF GOODS
SURPLUS
TRADE DEFICIT
EXPORT OF GOODS
SURPLUS
62-63
63-64
64-65
65-66
66-67
67-68
68-69
69-70
70-71
71-72
72-73
73-74
ACTUAL
PROJECTED

5. Amortization

Amortization payments on debt existing as of June 30, 1969 amounts to approximately $707 million in FY 1971-74 or an average of $177 million annually for the next four years. These amortizations include those due on the external debts of the Central Bank which were rescheduled in June, 1970.

If all new debts incurred (except the short-term borrowings of the Central Bank in the first semester, 1970, for working balances) have an average grace period of 2 years and maturity of 12 years, the total amortization payments can be kept down to an annual average of $258 million in FY 1971-74.

These amortization payments do not include float items like trade acceptances which are continuously renewed.

6. Transfers

The major autonomous financing items are private and public transfers. In the past, private transfers have contributed an average annual net receipt of $25 million, which is assumed to continue in the future.

Public transfers, on the other hand, are composed of reparations from Japan and grants from the U.S. Veterans Administration and from other official agencies like the UNDP. As of June 30, 1969, $245 million was outstanding in reparations due from Japan. Of this $110 million is scheduled but undisbursed, while $135 million is still unscheduled. It may be possible to accelerate the disbursement of this amount in FY 1972 to FY 1974 in order to alleviate current foreign exchange problems. This will have to be negotiated with the Japanese Government.

7. The Financial Gap and Its Financing

With assumed growth in exports, imports and other autonomous uses and sources of external funds, the country's foreign exchange requirements will continue to grow over the next few years. The assumed annual growth of imports represents the incompressible level i.e., in the minimum import level consistent with continued growth of the economy as projected in Section III-Chapter 1. Even this level, however, cannot be sustained unless import financing is available on a long term basis.

Assuming that new financing is available at a weighted average of 12 years maturity, including a 2-year grace period, and 8 percent interest, then the new borrowings necessary to sustain the projected annual gross foreign exchange requirements of about $430 million during the Plan period will average approximately $290 million annually. Also built into the gross requirements is a gradual increase in the net international reserves.

Availing of import financing on a long term basis will allow the country to sustain the projected growth rates as well as improve the structure

of external debt. In order to implement this, it will be necessary to develop the pipeline of projects for external financing to ensure an adequate inflow of foreign credit. However, even if measures are immediately implemented to develop the pipeline, lags of at least 2 years must be expected before the actual inflow of capital. In the meantime, the country must face the problem of repaying its short-term debt and meeting its foreign exchange needs within the next 2 years.

8. External Debt and The Balance of Payments

During the past decade, the total outstanding external debt of the Philippines grew at an average of $110 million each year. As of June 30, 1969, it amounted to $1,478.42 million, of which 44.9 percent was public debt and 55.1 percent was private debt (see Table III-3-8). In themselves, the past increases and the size of the debt are not disturbing, considering the stage of development of the country and the growth of its gross national product. If an average annual growth of 5.5 percent of the GNP within the next four years is to be sustained, the size of the debt can be expected to continue to increase, reaching $1.9 billion in FY 1974.

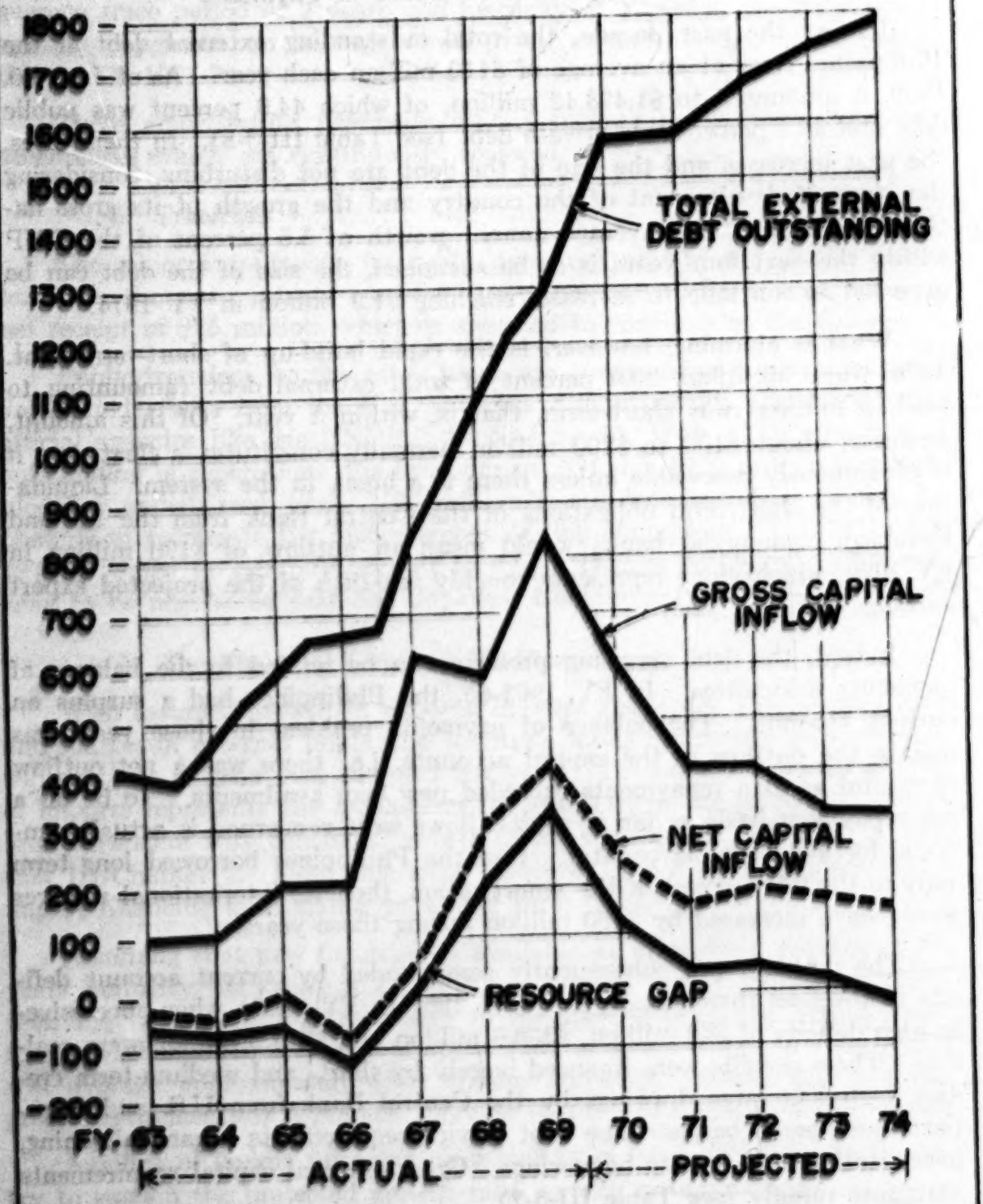
What is alarming, however, is the rapid build-up of short-term debt. As of June 30, 1969, 30.9 percent of total external debt (amounting to $457.19 million) was short-term, that is, within a year. Of this amount, however, about $150 to $200 million normally constitutes a float, i.e., it is continuously renewable unless there is a break in the system. Liquidation of the short-term obligations of the Central Bank from the US and European commercial banks would mean an outflow of $170 million in FY 1970, which alone represents roughly one-fifth of the projected export earnings for that year.

Indeed, the debt servicing problem can be related to the balance of payments difficulties. In FY 1963-65, the Philippines had a surplus on current account. The balance of payments problem in those years was due to the outflow in the capital accounts, i.e., there was a net outflow of capital as loan repayments exceeded new loan availments. To be on a net repayment basis as far as capital flows were concerned is actually unusual for a developing country. Had the Philippines borrowed long term only to the full amount of the amortization, then its international reserves would have increased by $150 million during those years.

The problem was subsequently compounded by current account deficits in the past three fiscal years (FY 1967 to FY 1969) when successively high deficits of $60 million, $309.6 million and $421.3 million were realized. These deficits were financed largely by short- and medium-term credits, including large drawings by the Central Bank from U.S. and European commercial banks. The debt service requirements began ballooning, necessitating still further borrowings. Gross external capital requirements thus rose rapidly (see Table III-3-2).

EXTERNAL DEBT OUTSTANDING AND GROSS CAPITAL INFLOWS

IN MILLION U.S. DOLLARS



In addition to the poor structure of the present debt, the terms of borrowing have worsened for the Philippines. The overall weighted average interest rate for medium- and long-term public debt rose from 4.54 percent in 1960 to 6.19 percent in 1968, while the weighted average maturity (inclusive of grace periods) fell from 16.6 years to 12.4 years (see Table III-3.7).

It is evident that the Philippines cannot continue to finance its developmental efforts through credits with short maturities. Nor, if growth targets are to be sustained, can the external requirements be compressed beyond a certain minimum level. The external debt problem is twofold: the first and most immediately pressing is that of repaying a large amount of short-term borrowing, and the second is a lack of long-term capital inflow. It will thus be necessary to improve the structure of the present debt and simultaneously develop the pipeline of projects for external financing to ensure a steady inflow of capital of the desired maturity. A major achievement toward improving the debt structure was the restructuring of $247 million Central Bank obligations into a medium term debt repayable over a period of seven years (FY 1970 to FY 1976).

9. External Debt Management

When the Philippines dismantled controls in the early 1960's, the movements in all the items on the current account of the balance of payments were generally freed. The capital accounts were not even monitored and the resulting movements reflected merely the piling up of commitments made by various entities. Thus, while the various individual transactions which were negotiated may have suited the financial capacities and convenience of the individuals concerned, they did not necessarily fit the capacity of the economy to service the capital accounts. During the surplus periods in the current account, the country actually reduced its external indebtedness, instead of building up its foreign exchange reserves, and maintaining its previous level of borrowing. When the current account surpluses turned into deficits in the last three years, the country aggravated the problem by financing the deficits mainly through short-term borrowings from U.S. and European commercial banks. Had the proper attention been paid to the management of the external debt and to the development of projects for long-term external financing, then the liquidity problem currently being faced need not have developed.

The Central Bank is dealing with the immediate liquidity problem by reinstituting regulations not only in the current account flows but also in the new external debts incurred. Other measures, such as those requiring commercial banks, inclusive of the Philippine National Bank, to surrender foreign exchange earnings as well as controlling the external loan guarantee operations of the DBP and NIDC have been instituted. All these measures, however, do not deal with the deeper administrative problem underlying debt management.

The Central Bank recently organized an External Debt Management Office with the status of a department, which is responsible for the overall financial management of external debt, keeping tab on its structure, servicing requirements, and impact on the rest of the economy. In consultation with the staff of the Economic Research and Foreign Departments of the Central Bank, the said office is charged with formulating an overall external borrowing strategy for the consideration of the Financial Policy Committee. Once a strategy has been formulated and approved, this Office will see to it that the necessary implementing directives and/or circulars are issued. Included in the strategy are policies regarding working cash balances and reserve requirements of the Central Bank.

To work in the future with the External Debt Management Office should be a project development group in the reorganized Planning and Programming Commission of the National Government (see Section VI, Chapter 2). The proposed Project Development Office would be responsible for identifying projects which are acceptable for financing by external lending agencies, and for requesting the agencies concerned to make the preliminary studies regarding their feasibility. Once assured of the viability of a project and its eligibility for external financing, the Office would then arrange for the funding of a detailed feasibility study which would be undertaken by the technical staff of the agency directly concerned and/or local and foreign consultant. The Office would provide direction over the study in order to ensure that all information, projections, and plans necessary for loan negotiations are made and that the data are combined in a project proposal acceptable to the lending institution. Finally, the Office would act as liaison in actual loan negotiations between the borrowing agency and the lending institution.

The existence of the External Debt Management Office at the Central Bank and the creation of the Project Development Office will not guarantee that the country's external debts will automatically become manageable. They will, however, provide the proper framework for its orderly management.

TABLE III-3-1: BALANCE OF PAYMENTS
FY 68/69-FY 73/74
(in million U.S. dollars)

	FY 1968-1969 ACTUAL	FY 1969-1970	FY 1970-1971	FY 1971-1972	FY 1972-1973	FY 1973-1974
A. Gross Capital Requirements						
Exports (Merchandise & non-monetary gold)	865.01	955	1,015	1,083	1,193	1,305
Imports	1,169.01	1,095	1,095	1,157	1,215	1,275
Trade Gap (Surplus)	304	140	80	74	22	(30)
Services						
Freight and Insurance	83.17	61	63	78	83	88
Travel	21.83	(15)	(20)	(22)	(24)	(26)
Others	(67.17)	(63)	(81)	(73)	(62)	(46)
Net Services Deficit (Surplus)	37.83	(17)	(38)	(17)	(3)	16
Net Investment Income Payments						
Direct Investment Income Payment	48.12	43	50	55	60	65
Interest Payment	31.36	85	86	85	94	102
Short Term — Private		4	—	—	—	—
Public		26	29	17	15	14
Med. & Long Term — Private		30	32	36	39	41
Public		25	25	32	40	47
Total	79.48	128	126	140	154	167
Current Account Deficit	421.31	251	178	197	173	153
Amortizations						
Short Term — Private[1]	125.83	100	—	—	—	—
Public[2]	192.92	48	70	65	48	44
Med. & Long Term — Private	80.71	195	133	148	144	150
Public	32.33	68	75	64	45	44
Total Amortization	431.79	411	278	277	237	238
Gross Capital Inflow[1]	843.43[3]	666[4]	456	474	410	391

Table III-3-1: (Continued)

	FY 1968-1969 ACTUAL	FY 1969-1970	FY 1970-1971	FY 1971-1972	FY 1972-1973	FY 1973-1974
B. Financing						
Transfers						
Private	35.24	25	25	25	25	25
Public	96.82	126	126	72	73	74
Total Net Transfers	132.06	151	151	97	98	99
Reparations	—	—	—	45	45	45
Foreign Investments	(3.26)	8	9	10	10	11
Borrowings						
Short Term — Private	343.43	84				
Public	241.52	154				
Medium & Long Term						
Private	198.10	200	—	—	—	—
Public						
Debt contracted prior to 6-30-69	66.99[1]	50	50	50	21	—
Debt contracted in FY 1969/70	—	80	—			
New Debt[5]			326	322	286	236
Total	850.04	568	376	372	307	236
Changes in Gross International Reserves	35.89	(35)	(80)	(50)	(50)	
Errors and Omissions	(171.30)	(26)		—	—	—
Gross Financing	843.43	666	456	474	410	391

[1] Excluded from short-term private capital flow projections are items like bankers' and trade acceptances, cash credits, open account credits and other float items which amount to approximately $150 to $200 million outstanding at any given time. The omission of this item from the Balance of Payments projections accounts for the drop in gross capital inflow in FY 1969/70 and thereafter.

[2] Included in short term public capital flows are the short-term accommodations availed of by the Central Bank from foreign commercial banks and the International Monetary Fund, as well as Central Bank external debts which were restructured in June, 1970.

[3] Includes debts of $4.19 million and $5.48 million for Investments Abroad and Other Assets, respectively.

[4] Includes debits of $1.46 million and credits of $5.59 million, for Investments Abroad and Other Assets, respectively.

[5] Composed of gross availments of public and private debt in FY 1970/71 and thereafter, including debt incurred to support the government infrastructure program, commodity and trade credits and privately contracted suppliers' credits.

Table III-3-2: BALANCE OF PAYMENTS, FY 1963 — FY 1969

(In Million U.S. Dollars)

	1962-1963	1963-1964	1964-1965	1965-1966	1966-1967	1967-1968	1968-1969
A. GROSS CAPITAL REQUIREMENTS							
1. Goods							
Exports mdse. & non-monetary gold	(641.74)	(755.88)	(758.28)	(850.40)	(816.45)	(866.09)	(865.01)
Imports	569.59	720.84	787.56	808.81	974.98	1,094.79	1,169.11
TRADE GAP (SURPLUS)	(72.15)	(35.04)	29.28	(41.59)	158.53	228.70	304.00
2. Services							
Freight & Insurance	42.29	52.18	50.70	55.01	64.52	84.61	83.17
Travel	38.31	14.78	19.46	14.53	(37.79)	17.43	21.83
Other Services	(39.41)	(83.64)	(128.80)	(135.45)	(173.00)	(115.79)	(67.17)
Net Services	41.19	(16.68)	(58.64)	(65.91)	(146.27)	13.75)	37.83
RESOURCE GAP (SURPLUS)	(30.96)	(51.72)	(29.36)	(107.50)	12.26	214.95	341.83
3. Investment Income Payments							
Direct Investment Income	18.49	7.80	9.50	13.91	22.73	68.38	48.12
Interest — private)	1.24	11.24	23.30	26.59	25.94	26.24	31.36
public)							
Net Investment Income	19.73	19.04	32.80	40.50	48.67	94.62	79.48
NET CAPITAL INFLOW (OUTFLOW)	(11.23)	(32.68)	3.44	(67.00)	60.93	309.57	421.31
4. Amortizations							
Short-Term — private	1.63	64.12	153.45	83.19	376.11	87.17	125.83
public (Central Gov't & Central Bank	51.53	22.55	39.25	112.26	103.28	111.92	192.92
Medium & Long-Term — private	40.09	47.11	58.14	40.34	29.09	27.45	80.71
public	14.82	5.44	15.85	34.85	37.01	38.46	32.33
NET AMORTIZATIONS	108.07	139.22	266.69	270.64	545.49	265.00	431.79

Table III-3-2: (Continued)

	1962-1963	1963-1964	1964-1965	1965-1966	1966-1967	1967-1968	1968-1969
5. Investments Abroad	1.08	.43	32	2.31	.86	.62	(4.19)
6. Other Assets	2.85	(.66)	2.56	.57	39.50	5.62	(5.48)
GROSS CAPITAL INFLOW	100.77	106.31	273.01	206.52	646.78	580.81	843.43
B. FINANCING							
1. Transfer Payments — private	39.73	17.30	23.14	20.87	20.79	26.41	35.24
public	56.20	61.20	94.24	62.95	115.75	155.71	96.82
NET TRANSFER PAYMENTS	95.93	78.50	117.38	83.82	136.54	182.12	132.06
2. Foreign Investments	(3.67)	(6.64)	(5.18)	(17.42)	(7.93)	(18.72)	(3.26)
3. Borrowings — public (Central Gov't	18.09	29.32	28.61	12.68	326.43	185.40	343.43
(Central Bank[1]	.76	25.00	42.00	175 29	170.45	239.61	241.52
Medium & Long-Term — private	8.90	24.62	55.41	21.00	16.67	50.07	157.63
public	16.20	32.70	79.68	89.81	32.83	31.00	107.46
BORROWINGS	43.95	111.64	205 70	298.78	546.38	506.08	850.04
4. Changes in International Reserves	(7.79)[2]	28.56[2]	58.85	(115.19)	39.22	(72.80)	35.89[2]
5. Errors & Omission	(27.64)	(105.75)	(103.74)	(43.47)	(67.43)	(15.87)	(171.30)
GROSS FINANCING	100.77	106.31	273.01	206.52	646.78	580.81	843.43

[1] Figures for Central Bank borrowings include some medium term loans.

[2] Slight discrepancies exist between the flows recorded in the Balance of Payments and the stock positions of International Reserves for the following year: 1962-63 of 3.56, 1963-64 of 3.08.

SOURCE: Central Bank, Balance of Payments.

TABLE III-3-3: PHILIPPINE EXPORTS: PROJECTED FY 1970—FY 1974

(Volume in thousand metric tons unless otherwise stated; value in million U.S. dollars)

	FY 1969 — ACTUAL			FY 1970 — PLAN BASE			FY 1971		
	Volume	Unit Value	Value	Volume	Unit Value	Value	Volume	Unit Value	Value
Sugar, raw	885	153	135	1,000	153	153	1,083	153	166
Wood Products[1]									
Logs	8,428	25	211	8,596	25	215	8,767	25	219
Lumber	168	60	10	170	60	10	170	60	11
Plywood	231	107	25	—	—	20	334	105	35
Veneer	183	74	14	—	—	12	277	65	18
Coconut Products									
Desiccated Coconut	64	343	22	62	281	18	68	331	23
Copra	659	171	112	540	186	100	666	165	110
Coconut Oil	240	254	61	238	250	60	226	246	56
Copra Meal and Cake	186	55	10	178	54	10	178	53	9
Minerals									
Copper Concentrate	435	228	99	615	267	164	655	267	175
Iron Concentrate	1,142	110	12	1,253	10	13	1,352	10	14
Nickel	—	—	—	—	—	—	—	—	—
Total Major Exports			711			755			836
Other Export Products	—	—	135			150			159
Total Exports			846			935			995

[1] In thousand cubic meters.

Table III-3-3: (Continued)

	FY 1972			FY 1973			FY 1974			Ave. Annual Growth in Value (% Per Annum)	
	Volume	Unit Value	Value	Volume	Unit Value	Value	Volume	Unit Value	Value	1969-1974	1970-1974
Sugar, raw	1,145	153	175	1,161	153	177	1,231	153	188	6.8	5.25
Wood Products[1]											
Logs	8,942	25	224	9,121	25	228	9,303	25	233	2.0	2.0
Lumber	170	60	11	170	60	11	170	60	11	2.0	2.4
Plywood	384	104	40	442	103	46	508	102	52	16.0	27.0
Veneer	340	61	21	418	57	24	514	53	27	14.0	22.5
Coconut Products											
Desiccated Coconut	69	324	22	71	318	23	73	318	23	1.0	6.25
Copra	677	162	110	688	161	111	699	161	113	.2	3.25
Coconut Oil	313	242	76	399	240	96	484	240	116	14.0	18.0
Copra Meal and Cake	229	52	12	280	51	14	331	51	17	11.35	14.0
Minerals											
Copper Concentrate	738	253	187	820	228	187	820	228	187	13.5	3.5
Iron Concentrate	1,483	10	15	557	10	16	1,635	10	16	6.0	5.4
Nickel	—	—	—	—	—	53	—	—	96		
Total Major Exports			893			986			1,079	8.75	9.5
Other Export Products	—	—	172	—	—	189	—	—	208	9.0	8.5
Total Exports			1,065			1,175			1,287	8.75	8.5

[1] In thousand cubic meters.

Table III-3-4: EXPORTS BY MAJOR COMMODITIES, FY 1962 TO FY 1968
(Volume in thousand metric tons, unless otherwise specified; value in million U.S. dollars)

	1961-62			1962-63			1963-64			1964-65		
	Volume	Value	Unit Value	Volume	Value	Unit Value	Volume	Value	Unit Value	Volume	Unit	Unit Value
TOTAL EXPORTS		514			628			741			743	
Coconut Products		136			208			248			254	
Copra	688	98	142	919	138	151	972	162	167	877	162	185
Coconut Oil	92	19	206	184	41	223	220	55	250	224	63	281
Copra Meal	104	5	48	154	11	71	190	11	58	181	11	61
Desiccated Coconut	58	14	241	67	17	254	72	20	278	64	18	281
Sugar		126			124			133			147	
Raw Sugar	995	126	127	912	124	136	904	133	147	1,163	147	126
Wood Products[1]		108			151			179			173	
Logs[2]	3,233	79	24	4,427	119	27	5,675	147	26	5,991	138	23
Lumber[3]	80	4	50	87	5	57	130	7	54	127	8	63
Other Logs and lumber	547	12	22	460	12	26	80	2	25	—	—	—
Plywood	104	10	96	113	11	97	182	20	110	224	22	98
Veneer[4]	99	3	30	134	4	30	125	3	24	245	5	20
Minerals		39			42			56			54	
Iron Ore	997	9	9	1,188	10	8	1,528	12	8	994	8	8
Iron Concentrates	57	.5	9	87	1	11	245	2	8	234	2	9
Copper Ore	14	.5	36	18	1	56	11	.4	36	16	.7	44
Copper Concentrates	160	18	112	201	24	119	307	33	107	248	34	137
Chrome Ore	476	11	23	336	6	18	439	9	21	473	9	19
Miscellaneous (Residual)		105			103			125			115	

[1] Quantity in thousand cubic meters.
[2] Includes apitong and lauan only.
[3] Lauan white mahogany only.
[4] Beginning 1967, veneer figures include dry core stock figures.
SOURCE: Central Bank of the Philippines.

Table III-3-4. (Continued)

	1965-66			1966-67			1967-68		
	Volume	Value	Unit Value	Volume	Value	Unit Value	Volume	Value	Unit Value
TOTAL EXPORTS		835			800			848	
Coconut Products		292			229			226	
Copra	1,008	183	182	828	133	161	650	124	191
Coconut Oil	272	72	265	281	65	231	223	70	314
Copra Meal	207	15	72	219	15	68	181	11	61
Desiccated Coconut	71	22	310	63	17	270	59	21	356
Sugar		137			144			149	
Raw Sugar	1,027	137	133	1,010	144	143	1,009	149	148
Wood Products[1]		210			223			248	
Logs[2]	8,160	183	22	6,578	195	30	6,498	164	25
Lumber[3]	118	7	59	101	6	59	92	5	54
Other Logs and lumber	—	—	—	—	—	—	1,941	50	26
Plywood	196	17	87	191	17	89	205	20	98
Veneer[4]	151	3	20	165	5	30	149	9	60
Minerals		80			101			94	
Iron Ore	797	6	8	551	5	9	325	3	9
Iron Concentrates	451	5	11	712	7	10	1,118	10	9
Copper Ore	30	3	100	144	5	35	63	3	48
Copper Concentrates	279	57	204	359	77	214	360	76	211
Chrome Ore	434	9	21	374	7	19	121	2	17
Miscellaneous (Residual)		116			103			131	

[1] Quantity in thousand cubic meters.
[2] Includes apitong and lauan only.
[3] Lauan white mahogany only.
[4] Beginning 1967, veneer figures include dry core stock figures.
SOURCE: Central Bank of the Philippines

Table III-3-5: IMPORTS BY END USE[1] FY 1962 TO FY 1968
(In Million U.S. Dollars))

	1961-1962	1962-1963	1963-1964	1964-1965	1965-1966	1966-1967	1967-1968
Consumer Goods	110	108	123	157	145	160	175
Food	98	96	106	142	128	139	150
Beverages & Tobacco	2	1	2	2	3	6	7
Chemicals	10	9	11	10	11	14	18
Miscellaneous	[2]	2	4	3	3	2	1
Raw Materials	289	264	331	333	368	439	478
Food	3	3	2	3	2	4	7
Animal & Vegetable Oils	3	3	5	4	4	4	4
Crude Materials	39	38	41	37	40	53	51
Chemicals	55	44	54	58	64	77	84
Fuels	50	62	71	72	82	89	102
Manufactured Goods	134	108	146	149	159	200	219
Miscellaneous	4	5	11	10	17	12	12
Producers Goods	222	197	268	298	296	375	439
Transport Equipment	59	56	88	83	98	123	135
Machinery & Equipment	146	125	162	196	180	229	277
Miscellaneous	17	16	18	19	19	23	27
TOTAL IMPORTS	621	570	721	788	809	974	1,093
Percent Distribution (%)							
Consumer Goods	17.7	19.0	17.1	20.0	17.9	16.4	16.0
Raw Materials	46.5	46.4	45.8	42.2	45.5	45.1	43.8
Producers Goods	35.8	34.6	37.1	37.8	36.6	38.5	40.2
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] Grouped according to NEC classification, with the exception of "Transport Equipment" which was reclassified as a "Producers Good." In 1968, $32.0 million out of $102.4 million "Road Motor Vehicles" was made up of passenger cars and scooters. Included under "Consumers Goods" are certain raw materials such as grains, dry skim milk and meat products. "Machinery and Equipment" under "Producers Goods" includes appliances.

[2] Less than one million U.S. dollars.

Table III-3-6: IMPORTS BY END USE
PROJECTED FY 1970 TO FY 1974
(In Million U.S. Dollars)

	FY 1969 Actual	FY 1970	FY 1971	FY 1972	FY 1973	FY 1974	1970-1974 Annual Growth
Total Imports	1,170	1,095	1,095	1,157	1,215	1,275	4.0%
Consumer Goods	150	154	159	164	169	174	3.0%
Raw Materials	530	476	511	547	587	628	7.25%
Producer Goods	490	465	425	446	459	473	3.0%
Percent of Fixed Capital Formation	32.3%	31.9%	27.7%	27.4%	26.6%	25.8%	

Table III-3-7: TERMS OF PUBLIC BORROWING (WEIGHTED AVERAGES)*
CY 1960 & CY 1968

	Amount Outstanding ($MM)		Percentage Share (%)		Weighted Interest Rate* (%)		Maturity* (Years)	
	1960	1968	1960	1968	1960	1968	1960	1968
Medium Term	4.63	185.79	2.95	38.71	6.000	7.120	2.03	3.24
Long Term	152.50	294.11	97.05	61.29				
Multilateral	18.39	132.07	11.70	27.52	6.00	5.760	25.00	21.84
Bilateral								
U. S.								
Eximbank	56.10	43.87	35.70	9.14	4.150	4.310	24.11	28.36
A I D	—	16.89	—	3.52	—	4.120	—	16.65
Others	22.61	4.95	14.39	1.03	2.500	4.000	11.15	12.00
West Germany	—	10.00	—	2.08	—	3.500	—	15.00
Public External Bonds	—	12.62	—	2.63	—	6.500	—	15.00
Private Creditors								
Commercial Banks	—	9.47	—	1.97	—	6.050	—	14.89
Suppliers' Credits	55.40	64.24	35.26	13.38	5.340	6.800	9.67	6.54
Total Medium and Long Term Public External Debt	157.13	479.90	100.00	100.00	4.544	6.194	16.61	12.44

*Weighted by amounts outstanding, inclusive of undisbursed portions. Calculated by Bancom Development Corporation in its study for the Central Bank on The Philippine External Debt.

Source of Basic Data: Central Bank of the Philippines, Development Bank of the Philippines.

Table III-3-8: EXTERNAL DEBT OUTSTANDING EXCLUSIVE OF UNDISBURSED AS OF JUNE 30, 1969[1] (In Million U. S. Dollars)

I. Total External Debt[2]	1,478.42
II. Total Short Term Debt	457.19
A. Short Term Public Debt	292.04
Central Bank	252.54
U.S. Commercial Banks	146.50
European Banks	23.54
IMF	82.50
Gold Tranche	27.50
First Credit Tranche	27.50
Second Credit Tranche	27.50
PNB	
U.S. Banks Peso-Dollar Swap	39.50
B. Short Term Private Debt[3]	165.15
Suppliers Credits (D/A, D/P, Open Account)	73.67
U.S. Commercial Banks	66.40
Other Loans	25.08
III. Total Medium and Long-Term Debt	1,021.23
A. Medium-Term Public Debt	121.30
U.S. Commercial Banks	121.30
C.B. — syndicate notes payable	81.50
DBP Loans	34.80
GSIS	5.0

SOURCE OF BASIC DATA: Central Bank of the Philippines.

[1] Compiled and estimated by Bancom Development Corporation in its study for the Central Bank on Philippine External Debt.

[2] As of June 30, 1969, the total estimated amount of external debt was $1,649.86 million, of which $1,478.42 million was availed of and outstanding, and $171.44 million was undisbursed.

[3] Taking the economic system as a whole, these short-term credits are normally continually renewed and so constitute a float item. It is to be expected that, as the volume of trade expands overtime, these float items will grow in amount.

B. Long-Term Public Debt	250.44
Multilateral	100.66
IBRD — DPWC	5.10
IBRD — U.P.	3.49
IBRD — NPC Binga	13.45
IBRD — NPC Angat	29.50
IBRD — NPC Ma. Cristina	2.71
IBRD — NPC Bataan	2.77
IBRD — NAWASA	16.09
IBRD — C. B. Rural Banks	4.58
IBRD — PNB-PDCP $15.MM	10.53
IBRD — PNB-PDCP $25.MM	12.44
IBRD — C. B. Rural Bank $12.5 MM*	—
IBRD — NIA $34.MM*	—
IBRD — PNB-PDCP $25.MM*	—
ADB — PNB-PDCP $5.0 MM*	—
Bilateral	69.04
Eximbank	41.06
Eximbank — ICA — 92.1	9.58
Eximbank — ICA — 92.2	8.73
Eximbank — ICA — 92.3	4.32
Eximbank — Manila Harbor	9.76
Eximbank — MIA	3.10
Eximbank — NPC Ambuklao	5.57
Eximbank — CAA $3.81 MM*	—
A I D	8.26
A I D — DPWC	3.17
A I D — Feasibility studies	.40
A I D — irrigation & rehabilitation	.01
A I D — DBP	4.68
A I D — DBP Moresco $1.1 MM*	—
A I D — DBP Vresco $2.0 MM*	—
U.S. Government — commodity loan	9.43
West Germany — DBP	10.29
Nationale Bank, Amsterdam — $6.38MM*	—
Japan Eximbank — highway $30.MM*	—
Public Bond Issues	12.32
Private Sources	68.42
1. Financial Institutions	7.52
Morgan Guaranty — Telecom.	2.84
Morgan Guaranty — $2.088	1.88
Morgan Guaranty — NPC Bataan	2.80

* No availments as of June 30, 1969.

2. Private Suppliers	60.90
U.S. Suppliers — DPWC	32.22
Gen. Tel. & Electronics — DBP	2.50
Singer Sewing — DBP	2.0
Toyo Menka Kaisha — DPWC	8.52
Japanese firms — PNR	11.80
Bell Tel., Belgium	1.19
Standard Electric Lorenz, Germany	1.49
Standard Tel. Cable, Australia	1.18
C. Medium & Long-Term Private Debt	649.49
Export-Import Bank of the U.S.	63.64
A I D	5.38
I F C	8.00
Oil Companies	17.88
Suppliers Credits[5]	280.58
Others (Includes export deduction)[6]	274.01

[5] Includes DBP-guaranteed private debt of approximately $125.0 million.
[6] Export deductions outstanding amounted to $27.56 million as of June 30, 1969.

Notes to Table III-3-3: EXPORT COMMODITIES

A. SUGAR

The domestic production of raw sugar increased at the low rate of about 1.4 percent annually in FY 1962 to FY 1968 while domestic consumption rose at a higher rate of almost 4 percent annually during the same period. Exports of raw sugar, in other words, declined.

The low growth in output in the past was due to the declining yield of sugar per hectare, aggravated by the typhoon damages in 1966 and 1968. To check the adverse trend in sugar production, a Sugar Production Council was created on June 18, 1968 to "undertake an overall planning for the revitalization and modernization of the Philippine sugar industry." A task force was set up to look into the following problems confronting the sugar industry: multiplication and propagation of high yield variety cane, increased fertilization, improved irrigation and extension service, and better synchronization of farm and mill operations. The general strategy is aimed at reaching a sugar output level of 2.6 million short tons by crop year 1971-1972. Judging from accomplishments to date, this output target will not be attained, thus the production forecasts shown in the agriculture chapter of this Plan are lower than the goals of the sugar task force.

The United States is exclusively the Philippine export market for sugar. The movement of sugar to the United States is governed closely by the U.S. quota system as embodied in the Sugar Acts and by the provisions of the Laurel-Langley Agreement.

The quota system on sugar entering continental United States, started by the Jones-Costigan Act of 1934 and carried by the subsequent Sugar Acts, protects the U.S. domestic sugar industry. Under the quota system, the U.S. Department of Agriculture and Natural Resources estimates the annual U.S. sugar consumption requirements and determines the sources of supply. Domestic production is given priority and the residual is filled by imports through a quota system. The quota arrangement assures foreign suppliers, including the Philippines, of a contracted market of a given quantity of sugar and a price per pound that lately has been 4 U.S. cents (with tariff duty) higher than the world market price.

The U.S. consumption increased at an average annual rate of 1.3 percent from 1962 to 1968. At this growth rate, consumption requirement is expected to call for 11.2 million short tons (10.2 million MT) of sugar demand once the Sugar Act of 1965 is renewed in 1971.

A decline in the U.S. production of domestic and insular sugar necessitated a consequent increase in import. Thus, from 1962 to 1968 U.S. import grew at an average annual rate of 3.1 percent. In 1965, about 39 percent of sugar consumption was filled by import and this import share in filling the demand increased to 44 percent in 1968. There is no indication that the higher import share will be reduced in the next few years.

Besides the U.S. Sugar Act, the Laurel-Langley Agreement of 1946 controls the movement of Philippine sugar to the U.S. market. The Agreement fixed basic quota for Philippine sugar at 980,000 short tons, raw value. The Sugar Act of 1965, which will expire in 1971, raised this quota from 980,000 to 1,050,000 short tons. This basic quota is based on a total U.S. requirement of 9.7 million short tons. Whenever there is an upward revision of the requirements, the Philippines enjoys an additional share of 10.86 percent of the U.S. consumption requirement in excess of 9.7 million short tons. With the allocation for Cuba suspended until resumption of diplomatic relations between that country and the United States, the Philippines also receives other quota allotments. Additional quotas are likewise given to the Philippines to cover deficits in domestic and other foreign suppliers. The Philippine share in the total U.S. quotas for foreign suppliers averaged 25 percent from 1963 to 1968, the remaining 75 percent was distributed among the rest of the 30 other foreign suppliers. The total Philippine quota currently amounts to 1,126,000 short tons.

The Philippines has been accorded preferential treatment in the history of U.S. sugar import. The possibility is great that in the Sugar Act of 1971, the Philippines will retain its prime position as sugar exporter to the United States. At least, the Philippine quota will not be reduced from the basic quota fixed by the Laurel-Langley Agreement. The uncertainty of the Philippine quota share is in the Sugar Act for the year (after 1974) following the termination of the Agreement. Even after the Laurel-Langley Agreement expires in 1974, however, the Philippines will still enjoy a quota as long as no diplomatic break happens between the Philippines and the United States. The United States has given quotas to the other countries without any **quid pro quo.**

Of lesser significance is the preferential duty on Philippine sugar entering the U.S. market. In 1974, the Philippines will pay the full rate of 0.625 U.S. cents per pound. Although the payment of the full duty will reduced profit margins, the premium price in the U.S. market provides sufficient export incentives.

The supply and demand balance for raw sugar is shown on page 57.

B. COCONUT PRODUCTS

Copra

The Philippines copra production increased at an average rate of slightly less than 2 percent annually from 1962 to 1968. This low growth rate was due to poor farm management. Among coconut growers, the prevalent practice is to plant the seedlings and then simply wait until these start bearing fruits. During their stage of growth, the young trees are not cultivated or given fertilizers. The poor management being practices are compounded by typhoon hazards that affect large coconut producing areas.

In 1962, approximately 60 percent of domestic copra production went to the export trade. The remaining 40 percent was processed into oil and meal. Today, their ratio is reversed; 40 percent goes into export and 60 percent, into processing.

Philippine copra exports have undergone wide fluctuations caused by the following major factors: considerable decline in domestic production due to typhoon damages; stockpiling of copra in the foreign market; availability of close substitutes like palm kernels, soybeans, and other vegetable and animal oils. The greater bulk of Philippine copra export goes to the European and U.S. markets. Germany and the Netherlands, the major importers of Philippine copra, shared between themselves an average of 49 percent of the total Philippine export in the years 1962-1968. The United States, the third major importer for the period, absorbed 32 percent.

Philippine copra export projections for the period 1971-1974 are residual estimates. They represent the difference between the estimated copra production and the copra requirements of oil mills, with copra inventories remaining unchanged.

RAW SUGAR: SUPPLY AND DEMAND
(In Thousand Metric Tons)

FISCAL YEAR	PRODUCTION[1]	CONSUMPTION[2]	EXPORTS[3]	ENDING STOCKS
1962	1,468	494	1,016	267
1963	1,555	579	994	249
1964	1,683	521	1,061	350
1965	1,557	460	1,056	391
1966	1,402	574	999	220
1967	1,560	595	977	208
1968	1,595	619	969	215
FORECAST				
1970	1,735	670	1,065	215
1971	1,780	697	1,083	215
1972	1,870	725	1,145	215
1973	1,915	754	1,161	215
1974	2,015	784	1,231	215

[1] In 1970-1974, it was assumed that 8 additional mills will be operational. These excludes production of muscovado aand molasses.
[2] Projected at the past growth of 4% per annum.
[3] In 1970-1974, it has been assumed that the available quantities for export (without any change in stocks) will be exported.
SOURCE: International Sugar Council Yearbook (1962-1968-ending stocks)
Sugar Quota Administration (1962-1968 production).
Central Bank of the Philippines (1962-1968 exports).

Coconut Oil

The Philippines and Ceylon are the biggest exporters of coconut oil. Philippine participation in the world trade for this product has averaged 70 percent. The single biggest source of coconut oil, the Philippines thus affects greatly its world export movement.

A projected expansion of about 300,000 metric tons in oil-crushing capacities is indicated in the BOI's Investment Priorities Plan. This would mean an increase in the domestic production of coconut oil from its present 400,000 metric tons level to 700,000 metric tons by 1974. Assuming that the domestic consumption of coconut oil rises at the annual rate of 7.5 percent, exports will correspondingly increase from the peak 1967 level of about 280,000 metric tons to slightly above 460,000 metric tons in 1974. The Philippines sells most of its coconut oil to the United States. On the basis of the past growth in its imports, it is unlikely that the U.S. will be able to absorb the total Philippine export production of coconut oil. At most, the U.S. may absorb about 350,000 metric tons of oil. The Philippines has to place the remaining 110,000 metric tons in the European market.

Under the Laurel-Langley Agreement, shipments of Philippine coconut oil enter the U.S. duty-free as long as these are within the quota limit. Shipments in excess of the quota are subject to duty. The Philippine quota under the Agreement declined from the original 204,000 metric tons to the 1970 level of about 81,000 metric tons. When the quota system is abolished in 1974, the Philippines will have to pay duty on any shipment of coconut oil to the United States. Despite the decline in the entry of its duty-free coconut oil into the U.S., the Philippines' coconut oil exports to that country has nevertheless been increasing. This shows that Philippine exports to the U.S. are not hampered seriously by its duty of one U.S. cent per pound on coconut oil.

The full duty on coconut oil entering the U.S. from non-GATT countries is 4 U.S. cents per pound, broken down into 2 U.S. cents per pound as basic duty plus another 2 U.S. cents per pound as customs duty. By 1974, the Philippines will have to pay the full duty. For GATT members, the duty is only 3 U.S. cents per pound. The United States Act of 1934 imposed a duty of 2 U.S. cents per pound on Philippine coconut oil entering the U.S. in excess of the quota. The 1946 Agreement reduced that duty to 1 U.S. cent per pound.

The Philippines will do also have to contend with an increasing tariff duty if it turns to the European market. European duty on inedible coconut oil rose in 1967 from 3 percent ad valorem to 5 percent, and on edible coconut oil, from 8 percent to 10 percent ad valorem. However, this 10 percent ad valorem rate will still be lower than the full U.S. duty.

Copra Meal and Cake

Europe is the world's biggest importer of copra meal. In the 1962-1966 period, it bought 90 percent of the world's copra meal movement. The growth in Europe's import demand averaged 9 percent per annum. This growth exceeds the expansion in the requirements for oil. Since oil and meal are joint-products of the seed crushing industry, the imbalance in Europe in the demand for meal compared to oil will have to be filled through importation.

In Europe, Germany and the Netherlands are the major importers of Philippine copra meal. The strong demand for copra meal in these countries has been due to the rapid expansion of the mixed feeds industry. This expansion is due, in turn, to the high growth in poultry and pork consumption. On the basis of their past import records, the Netherlands and Germany can easily absorb about 780,000 metric tons of imported meal and cake per annum. The Philippine copra-processing industry can easily place its copra meal by-products in these two markets.

Philippine copra meal also finds a market in the United States, but demand for it is low. This is due to the excess of by-products from the U.S. oil seed crushing industry which deflates the demand for imported copra meal. It is significant to note that while the U.S. imposes a third of a cent per pound duty on imported copra meal, this by-product enters the European Economic Community free of duty.

Desiccated Coconut

World import of desiccated coconut has been increasing annually, but at the low rate of slightly above 1 percent. The projected demand based on this growth rate will be about 118,000 metric tons in 1970 and 122,000 metric tons in 1974. Of this world import, the Philippines would contribute an average of almost 660 percent.

The United States is the biggest single importer of desiccated coconut. In recent years it absorbed almost half of the world's trade in the product. As a supplier of desiccated coconut in the U.S. market, the Philippines enjoys certain advantages: its producers are subsidiaries of American firms. Another advantage is the quality of Philippine desiccated coconut which is superior to that of rival supplies, such as Ceylon's. Ceylon used to be the sole supplier in the U.S. market. In recent years, however, it has not contributed a large share in the U.S. imports. In 1964, 96 percent of the total U.S. desiccated coconut import came from the Philippines. The next year, the U.S. imported from no other country.

Another advantage the Philippines enjoys for its desiccated coconut is the U.S. tariff concession. The Fordney-McCumber Tariff Act of 1922, designed to protect Philippine desiccated coconut entering the U.S., imposed a 3½ U.S. cents per pound duty on imports from other foreign coun-

tries. Only a duty of 2 U.S. cents per pound was imposed on Philippine desiccated coconut. The 1946 Agreement maintained the 2 U.S. cents per pound duty when the Agreement was revised in 1955, the duty was reduced to 1.75 U.S. cents per pound. That duty had since been increased from the preferential 5 percent of 1.75 cents per pound in 1963 to 60 percent of the duty in 1968 and to the full duty of 1.75 cents per pound in 1974.

C. WOOD PRODUCTS

Logs

From 1962 to 1968, log production increased at an average annual rate of 7.2 percent. This was made possible by the 6 percent annual growth in the logs processed and a 7.8 percent expansion in exports due to favorable demand for Philippine logs in Japan, Korea, and Taiwan. Log exports represented 64 percent of production in 1966. Exports rose further in 1967 and 1968 (20 and 13 percent respectively) in spite of a forest conservation policy aimed at reducing log exports to 40 percent of total output by 1971 and increasing domestic processing of logs into lumber, veneer and plywood. (See Forestry Administrative Order #11-17, April 21, 1967.) Over the period 1962-1968, exports averaged 66 percent of total log output.

Approximately 94 percent of the Philippine log exports in 1968 was absorbed by Japan. In 1962-1968 the demand for logs in Japan increased at the average annual rate of almost 5 percent. The increase in the internal demand for wood products has assured continuity of this growth just as much as its expanding export activities in processed wood products. Japan has been importing logs from the United States and Asia, particularly the Philippines, Sabah, and Sarawak. In 1968, about 38 percent of Japanese log imports consisted of Southsea logs. That year, the Philippine share in the total Japanese Southsea log import was 55 percent. But while the Philippine log exports to Japan is still increasing, its share in the total Japanese Southsea log import has been decreasing since 1966. Nevertheless, as long as logs are available for export, the Philippines will continue to enjoy a strong position in the Japanese market. The constraint to the rapid expansion of log exports by the Philippines is not the external market, but the domestic production.

Lumber

Lumber production increased by about one percent per annum in the 1962-1968 period. Almost 90 percent of the lumber produced was absorbed by the domestic market and the remaining 10 percent by the export market. During the past few years, Philippine lumber exports remained at about 90,000 to 110,000 cubic meters, with about 60 percent being shipped to the United States. It is unlikely that future exports will go beyond 110,000 cubic meters.

As supplier of lumber to the U.S., the Philippines vies closely with Japan for the major position. In 1963-1965, Japan exported the biggest volume to that market. Starting in 1966, however, the Philippines emerged as the No. 1 supplier. Philippine share of the U.S. market in 1962-1968 averaged at about 43 percent compared to Japan's 36 percent.

Prior to the 1968 Kennedy Round Tariff concession, the U.S. duty for lumber was $1.50 per thousand boardfeet. In 1968 this tariff was reduced to $1.20. Within the lifetime of the 1968 Kennedy Round Agreement, this duty is expected to decline further until it reaches $0.75 per thousand boardfeet in 1972. After 1972 its fate largely depends on the next GATT Agreement and/or on the discretion of the U.S. Government. The Kennedy Round Tariff concession on lumber has been made applicable to the Philippines although it is not a GATT member.

Veneer

The domestic production of veneer, net of veneer processed into plywood, increased at an average rate of 19 percent over the 1962-1968 period. At the same time exports grew at about 16 percent per annum. The export market for Philippine veneer is the United States.

The total U.S. veneer import in the five years up to 1968 increased at an average rate of 12 percent. The Philippines is the biggest veneer supplier in the United States. Its participation in this market averaged at about 83 percent in 1962-1968. The next biggest suppliers, Malaysia and Singapore, together averaged only 16 percent. It is estimated that the growth in the U.S. import demand for veneer within the next 5 years will not be as strong as in the past because of a considerable slowing down in its construction activities. Projections show an estimated growth of 9 percent per annum (compared to 12 percent in the past) in U.S. import demand. It is also assumed that the Philippine veneer industry will remain competitive and thus maintain its share in the U.S. market.

The U.S. duty on veneer is equivalent to 10 percent ad valorem. In contrast, European duty on veneer after the 1968 Kennedy Round Agreement on tariff concessions is 3 to 7 percent ad valerom. Europe has been granting tariff concessions even to countries that are not GATT members. It might be worthwhile for the Philippines to study the possibilities of expanding its veneer exports to Europe.

Plywood

Almost 60 percent of Philippine plywood production goes to export and 40 percent to domestic consumption. The United States is exclusively the Philippine plywood export market.

Total U.S. plywood import grew at an average annual rate of about 21 percent in 1962-1968. The biggest increase occurred in 1966 when its imports reached the million cubic-meter mark. Another significant jump

was registered in 1968 when plywood imports increased to 1.8 million cubic meters. As in the case of veneer, the growth in the import demand for plywood is expected to decline to about 15 percent per annum during the next five years.

The Philippines shares a major position with Taiwan, Korea, and Japan as a supplier of plywood in the U.S. market. Although the Philippine plywood export to the U.S. has consistently grown, its share in the total U.S. trade has declined. The Philippines is up against very stiff competition from Taiwan and Korea whose production costs are reportedly lower despite the fact that their plywood industry is dependent on imported logs (a high proportion of which comes from the Philippines). To be more competitive in the still growing plywood market, Philippine producers should look into the possibilities of lowering costs. The key to cost reductions is to achieve a higher log recovery rate and thus reduce wastage.

The U.S. duty on plywood is equivalent to 20 percent ad valorem. Due to the provisions of the 1955 revised Laurel-Langley Agreement, Philippine plywood entering the U.S. market is changed at present an ad valorem duty of 12 percent. The full duty will be applicable in 1974. It must be noted that the U.S. gave tariff concessions on plywood to GATT members at the Kennedy Round Conference in 1968. These concessions were not given to Philippine plywood on the ground that the Philippines is not a member of GATT. Despite that fact, concessions were given to its lumber exports to the U.S.

D. MINERALS

Iron Ore and Concentrate

Philippine iron ore and concentrate production increased from 1.3 million metric tons in 1962 to about 1.4 million metric tons in 1968, representing an average annual growth of only 1.7 percent. During the same period, a shift in exports from ore to concentrates occurred. Exports of iron ore declined by about 20.5 percent per annum (from 977,000 metric tons in 1962 to 325,000 metric tons in 1968), while exports of concentrates increased by more than 35 percent (from 160,000 metric tons in 1962 to about 1.1 million metric tons in 1969). The principal producer-exporter of iron ore are Philippine Iron Mines and Filmag (Philippines), Inc. These two mining firms accounted for almost 80 percent of the total ore produced in recent years. Based on the existing marketing contracts of the various producers in the iron ore industry, an iron concentrate export of about 1.4 million metric tons is projected in 1974, with iron ore exports remaining constant at 325,000 metric tons. These export projections are conservative, considering the potentials of the Japanese market. Besides, the effects of the new exchange rate on the development of sub-marginal mines have not been reflected.

Japan iron import rose at an average annual rate of 20 percent in 1963-1967. The strong import demand for iron ore has been due to the rapid rise in Japan's steel output. Japan has emerged as the third largest producer of steel in the world, next to the U.S. and U.S.S.R. Iron ore and concentrates from the Philippines accounted for about 17 percent of the total Japanese iron imports.

Copper

Copper is exported mainly in concentrate form. Copper ore exports increased by about 28 percent annually, from 14,000 metric tons in 1962 to 63,000 metric tons in 1968. On the other hand, copper concentrate exports increased by 14 percent per annum, from 160,000 metric tons in 1962 to 350,000 metric tons in 1968. Based on planned capacity expansion in the industry, copper ore exports are projected to reach 100,000 metric tons in 1974, indicating an average growth rate of 8 percent, while copper concentrate exports are estimated to increase to 820,000 metric tons in 1974, implying an average annual growth in exports of about 15 percent.

The expansion in the production of copper concentrates has been encouraged by the abnormally high prices which this metal commands in the world market at the present time. The high prices have been due to the supply shortage generated by the strikes in the Chilean mines as well as in the decline in the output in Zambia. In addition, the marginal requirements of the United States for its Vietnam operations induced a further price rise, despite the existence of a U.S. strategic stockpile of copper.

The copper exports of the Philippines have gone mainly to the United States and Japan.

Nickel

A leading mining firm has completed plans for the construction of a nickel refinery in Surigao starting in FY 1971. It expects to begin exporting in FY 1973, with the maximum volume to be attained in FY 1975. At full operation, the refinery will generate export receipts amounting to about US $100 million per annum.

Other nickel deposits are currently being studied for possible development. Even if the development of these deposits are trend to be economically and financially viable, output will not be reflected during the Plan period, only the investments.

Section III — Chapter 4

PRICE ADJUSTMENTS

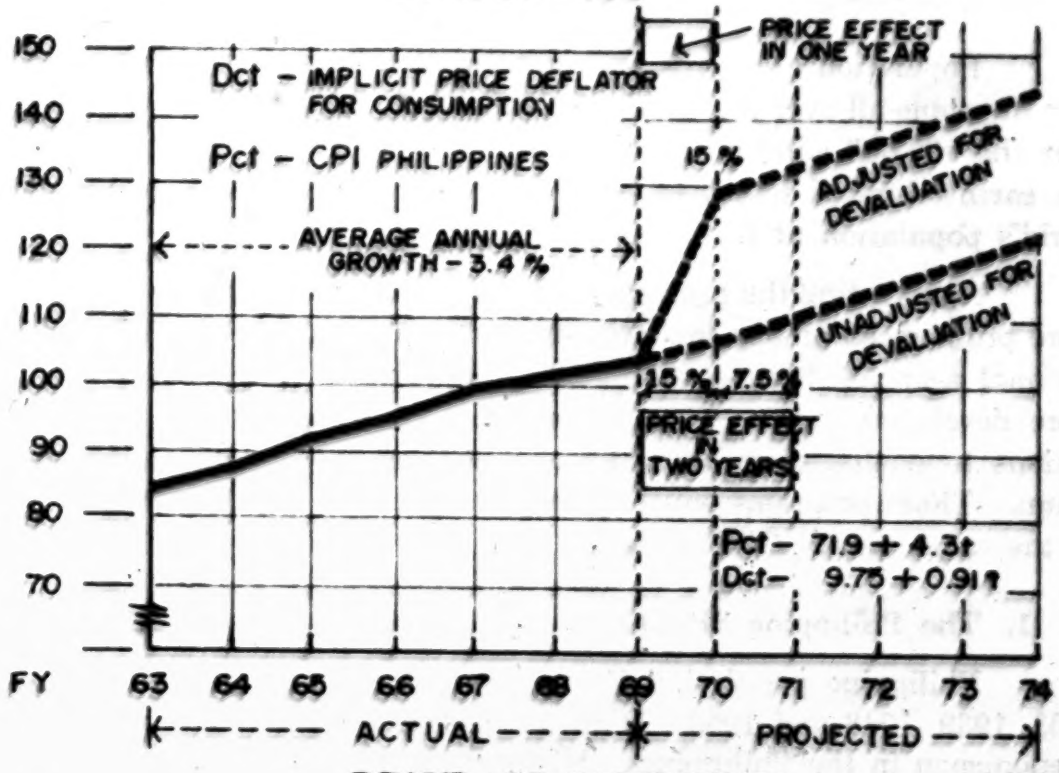
In 1963, a year after the import quota system at preferential exchange rates was removed and all import requirements were allowed to be procured at the freed rate of ₱3.90, domestic prices as measured by the consumer price index rose by only 8 percent. The change in prices was not severe in relation to the devaluation rate since at each stage of the decontrol process, price adjustments took place. Consumer prices rose by slightly above 4 percent in 1959-1962.

The period from FY 1963 to FY 1969 was characterized by price stability, consumer prices having risen by only 4.25 percent per annum. Since the floating rate was introduced in February 1970, prices have been increasing at a fast rate. It is estimated that consumer prices will increase by about 15 percent in FY 1970, and thereafter at slightly above 4 percent annually, the rate at which consumer prices rose during the past decade. These price changes take into account only the direct impact of the 50 percent de facto devaluation. The multiplier effects are not considered. For instance, when prices of petroleum products are adjusted upwards, transport costs tend to go up and so do industrial costs. The effects on the consumer price index of these adjustments will depend on the speed by which enterprises pass on to the end-users the costs changes. These are difficult to quantify.

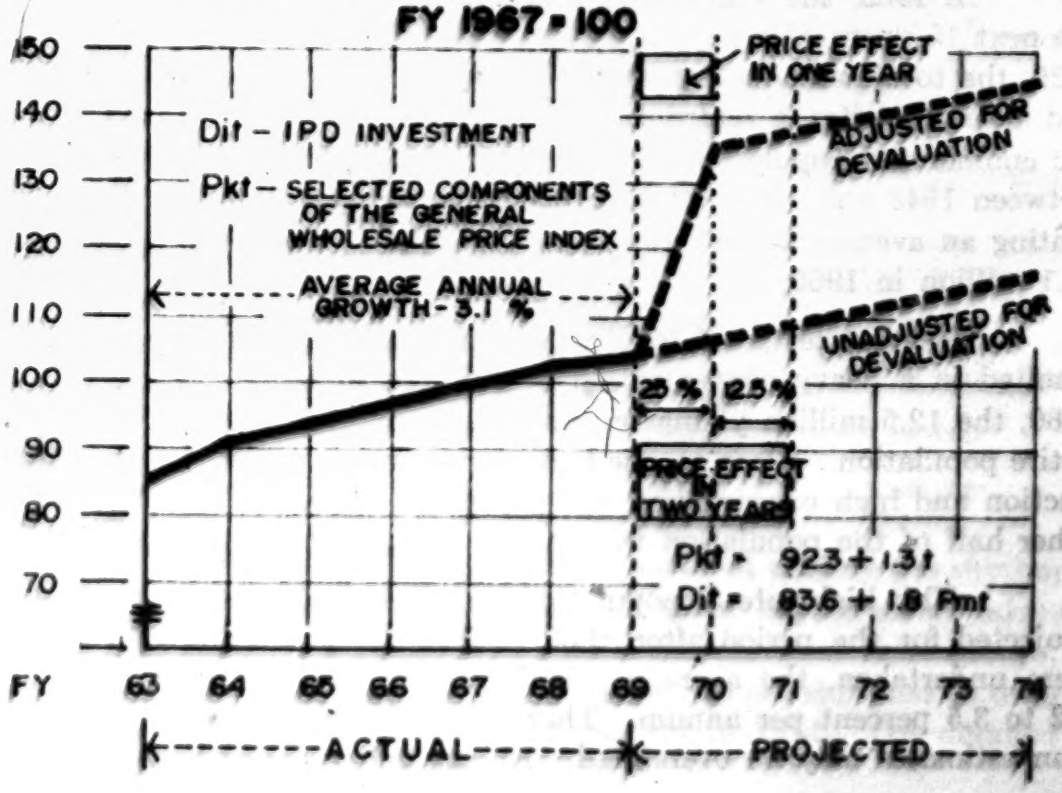
The effects of the 50 percent de facto devaluation on the capital formation index are more severe. It is estimated that prices of goods used in capital formation will rise by about 25 percent in FY 1970 and thereafter at the past average annual growth of 3.5 percent. The multiplier effects of such devaluation has also not been considered.

The multiplier effects will most likely be felt in FY 1971. This period will be transitional during which the economy will make stabilizing adjustments to currency devaluation. Price control measures have been adopted to thwart abnormal increases in prices of essential commodities during the period of adjustment. It is assumed that a moderate increase in minimum wages will be made to buffer low-fixed income earners from inflation. Fiscal restraints will be imposed, so that current expenditures of the national government will be increased only to the full extent of price and wage changes. Despite these measures, price changes above the trend growth of about 4.25 percent for consumer goods and 3.5 percent for capital goods are still to be expected. In the absence of any readily available basis of calculating these effects, the total price change in FY 1971 have been assumed at half the increases in FY 1970.

PRICE ADJUSTMENT
IMPLICIT PRICE DEFLATOR FOR CONSUMPTION
FY 1967 = 100



PRICE ADJUSTMENT
IMPLICIT PRICE DEFLATOR FOR INVESTMENT
FY 1967 = 100



Section III — Chapter 5

POPULATION

Population growth is one problem that has aroused very real concern of people all over the world. Nothing short of alarm has been expressed over the 190,000 addition to world population per day. It is feared that the earth's limited resources cannot support for long the growth of the world's population at its present rate.

Aggravating the problem is the fact that population growth has been more pronounced among less affluent countries. Consequently, some international agencies, both governmental and private, as well as some of the more developed nations have made offers of economic aid to developing nations to enable them to undertake population or family planning programs. These programs will enable greater increases in per capita income at the same overall GNP growth.

1. The Philippine Situation

Philippine population figures are based on population censuses of 1903, 1939, 1948 and 1960. High population growth is a relatively recent phenomenon in the Philippines. Historically, the country has been characterized by slight population increases punctuated by periods of sharp decline.

In 1903, the Philippines had a population of 7.6 million. During the next 15 years, this population grew to 10.3 million. Between 1918 and 1939, the total reached 16 million. With the destruction wrought by wars and internal strifes, a retardation in population growth occurred. In 1948, the enumerated population exceeded the 1939 figures by only 3.2 million. Between 1948 and 1960 net addition to population was 7.9 million, representing an average annual growth of 3 percent. Total population reached 27.1 million in 1960.

Constant levels of fertility and a steadily declining mortality rate resulted in a heavy concentration of children under 15 years of age. In 1960, the 12.5 million youngsters under 15 constituted 45.7 percent of the entire population. Close to one-half of the population was in the low production and high consumption age groups of under 15 and over 65. The other half of the population was in the productive age group of 15 to 64.

This high rate of population growth experienced in the fifties was projected for the period after 1960. While no post enumeration surveys were undertaken, the average growth rate in the sixties is estimated at 3.2 to 3.5 percent per annum. There are indications that current population estimates may be overstated. At any rate, the 1970 Census, started

in May 1970, will provide the statistical check on the accuracy of Philippine population estimates.

2. **Family Planning Program**

Family planning activities in the Philippines are being undertaken by a host of organizations, both public and private. At present there are 225 family planning clinics throughout the archipelago with some 50,000 clients, the estimated birth aversion in 2 years is 20,000.

Notable among private organizations are: the Family Planning Organization of the Philippines; the Institute of Maternal and Child Health; the Philippine Family Planning Agency; the Philippine Rural Reconstruction Movement; World Neighbors; the Responsible Parenthood Council; the Philippine Medical Association; and the various medical and related schools.

Government participation is limited to the 41 centers of the Manila City Health Department; the 5 clinics of the Davao City Health Department; the 3 clinics of the Angeles City Health Department; and 13 clinics of the Province of Laguna; and some of the rural health units of the Department of Health.

Government-funded participation will be maintained at present levels. With the same funds, however, the government program will be expanded in view of the joint participation with the private sector. The Responsible Parenthood Council, working through church organizations and barrio school teachers, expect to cover 25,000 barrios through family planning visits by 1974. Operations of this council will be funded almost exclusively through foreign grants. Its timetable is as follows:

Year	Coverage			No. of Participating Couples
	Province	Municipality	Barrios	
1970	24	120	1,920	96,000
1971	64	912	18,240	912,000
1972	64	1,280	25,600	1,280,000
1973	64	1,280	25,600	1,280,000

The Responsible Parenthood Council which will employ the rhythm method in their approach is complemented by other organizations advocating the use of pill and IUD approach. With the efforts of these groups, as well as by the government, population growth rates are expected to drop from the present rate of 3.5 percent to 3.2 percent in 1974. The detailed breakdown is as follows:

Population

Year	Mid-4 Year Estimates		End-Year Estimates[1]		Estimated Births Averted
	Thousand	Percent Change	Thousand	Percent Change	
1970	38,493[2]	3.5	37,826	3.573	34,237
1971	39,811	3.425	39,152	3.505	69,946
1972	41,145	3.350	40,478	3.386	107,505
1973	42,492	3.275	41,818	3.210	146,466
1974	43,852	3.200	43,172	3.237	187,355

Required Coverage

Year	Maximum No. of Users During the Year	Users Discontinuing During the Year	Continuing Users at End of Year
1970	142,654	57,062	85,592
1971	291,442	116,577	174,865
1972	447,937	179,175	268,762
1973	610,270	244,110	366,165
1974	780,646	312,258	468,388

[1] Adjusted for lag of 1 year
[2] SOURCE: Inter-Agency Committee on Demography.

Assumptions for the use of either pill or IUD combine:

(1) 4 births prevented for every 10 users.

(2) 2/5 of acceptors and same proportion of continuing users from previous years will discontinue contraception in any given year.

(3) 3/5 will continue using the method.

SECTION III — CHAPTER 6

EMPLOYMENT REQUIREMENTS

1. The Employment Situation

In October 1967, the country's population (10 years and over) was estimated to be 21.5 million, with the corresponding total labor force at 11.8 million. Of this total, 10.9 million persons were employed and a little less than one million (909,000) were unemployed. Of the 11.8 total labor force, nearly two-thirds (7.5 million) were males and a little over one-third (4.3 million) were females.

In terms of the rural-urban distribution of the labor force, there were 8.3 million economically active persons in the rural areas and the remaining 3.5 million were in the urban areas. The employed persons in the urban areas numbered a little over 3.1 million, and the rural areas accounted for about 7.8 million, thus making a total of 10.9 million employed in the whole country. Of the 909,000 unemployed, 359,000 were in the urban areas and 550,000 in the rural areas.

The 391,000 totally unemployed males and the 518,000 unemployed females represented 7.7 percent of the labor force. Unemployment among males was 5.3 percent of their labor force, but among females the unemployment rate was more than twice that for males, i.e., 12 percent of the female labor force. In the October 1967 survey, the figures on the duration of the period when these unemployed looked for work were not available. However, in the October 1966 survey, the unemployed's median number of weeks spent looking for work was 9.6 weeks.

Unemployment and underemployment of the large sections of the working population have caused widespread wastage of human resources. A detailed idea of the dimensions of the underemployment problem can be had by referring to the October 1966 Survey when approximately 1 million workers were visibly underemployed (working less than 40 hours a week), and another 1.7 million were invisibly underemployed in the sense that although they worked 40 hours or more per week they wanted additional work to supplement their low earnings. The total size of the underemployed workers was about one-fourth of the total employed persons. More precisely, on the basis of activity during the survey week, only 73.9 percent of the total employed worked full-time.

Underemployment on an annual basis gives a more realistic picture of the extent of visible underemployment of the country's working popula-

tion than that determined on the basis of the survey week as a reference period. The October 1966 Survey revealed that close to 2.2 million persons in the labor force, or about one-fifth of the total, were idle for 23 to 51 weeks during the 12-month period. These persons suffered from severe underemployment. Of them, 780,000 did not do any work at all for periods ranging from 38 to 51 weeks (or they worked less than 14 weeks in the whole year). The latter's underemployment may be considered so acute that they were virtually unemployed.

A further dimension of the underemployment situation can be grasped with reference to its distribution by major industry groups. The proportions of workers engaged in an industry group, working 40 to 52 weeks in the year may be a criterion for determining the seasonality of employment therein. Viewing the relevant details in Table VII-1-1, it may be observed that among the important industrial group, about 47.7 percent of the 40 to 52 weeks worker was in agriculture and allied activities. Considering the fact that this major industry group accounted for about 58 percent of the total employed in the economy, and also recognizing the fact that it is predominantly an activity in rural areas, the seriousness of the underemployment in the countryside becomes manifest. In construction, the seasonality of work caused by natural forces such as rainy season is quite obvious. In the manufacturing group, the employment in the sugar, cottage, and household industries is not year-round. In the commerce sector, some workers' employment is limited to brisk business seasons such as during the last quarter of the calendar year.

In agriculture and allied activities, it is common to observe a working day from sunrise to sunset. As such, the lower norm of 40 hours a week which determines full-time work underestimates the extent of underemployment in this sector. Besides, if more than half of the workers engaged in this sector work up to 39 weeks a year (among them 22.6 percent working less than 20 weeks a year), the enormity of the underutilization of labor becomes vividly clear.

The preceding analysis of the employment and unemployment situation in the country is subject to a conceptual drawback associated with labor force in developing countries. In these countries many people cannot be classified without ambiguity as members of the labor force or dependants. For example, rural females may divide their time between domestic chores and work in the field. Children may go to school and yet help adults in work on the field or in herding cattle. One of the questions put to respondents in the survey was: "Did he do any work at all last week not counting work around the house?". This question aimed at identifying part-time workers. If a person reports that he did some work, not counting chores around the house, at any time during the reference week, he is considered in the employed category although most of his time was devoted to household chores or going to school. It is completely within the realm of feasibility for a school student to attend classes and after

school hours, to engage in some nominal economic activity, such that he can put in some 20 or more hours of work every week. It is similarly possible for a housewife to attend to domestic chores and yet find time to help her husband in the household's farm, a retail business or a cottage industry.

In the aforesaid context, it would be easy to follow, as reported by the October 1967 Survey, that an estimate 288,000 teenagers classified as employed were attending school most of the time during the survey work. At the other end, some 813,000 employed workers (mostly females) were keeping their own house most of the time during the survey week.

The twin problems of unemployment and underemployment are related with the problem of imbalances between the availability of skilled and technical manpower of various categories and the economy's need for such manpower. In certain categories such as law, education, commerce, etc. surpluses of manpower exist, whereas shortages of manpower (which it is difficult to quantify in view of inadequate data) are observed in other categories such as: semi-skilled and skilled workers, including craftsmen and factory operatives; technicians, foremen and supervisors; instructors of craftsmen and others; well-qualified scientific and technological personnel; administrators and managers; and idea men and planners.

2. Growth of the Labor Force and Employment Requirements in FY 1971-1974

Aside from the acutely underemployed workers, the number of the unemployed at the beginning of the Plan period (FY 1971) is close to 1 million. As such, this may be treated as a backlog of unemployment for the Four-Year Development Plan.

During the four--year period October 1963-October 1967, the labor force rose from 10.2 million to 11.8 million, denoting an increase of 1.6 million. Although these data suffer from many conceptual drawbacks associated with identification of labor force in developing countries like the Philippines, they do provide a broad idea of the changing size of the labor force. It may be estimated that the labor force will increase by about 1.8 million during the Plan period, FY 1971-1974. Adding 1.8 million to the labor force estimate of 13.2 million for mid-year 1970, the total labor force in mid-1974 will be about 15 million.

Unemployment in mid-1970 is estimated at 7.7 percent of the country's labor force. This is based on the estimated 13.2 million labor force and about 1 million unemployed for mid-1970. The Plan has to contend with this high rate of unemployment at its beginning.

The target in the Plan is to reduce the unemployment rate from 7.7 percent to 5 percent by mid-year 1974. It means that unemployment by the end of the Plan should be reduced to about 750,000 (5 percent of 15 million labor force at that time). On this basis, the economy should

provide employment for 14.25 million. Since for mid-year 1970, the number of the employed is about 12.2 million (13.3 million labor force minus 1 million unemployed), it follows that over the four years of the Plan additional employment opportunities of about 2.05 million, or an average of slightly over .5 million a year, should be provided.

In addition to the above-mentioned unemployment problem, it will be essential to devise ameliorative measures, principally in the form of supplementary work, to deal with the massive underemployment problem involving close to one-fourth of the country's working population.

3. Targets for Diversification of the Employment Structure

In October 1967, as already mentioned, agriculture and allied activities accounted for 58.3 percent of the total employed in the economy. This predominance of agriculture as the single most important employment sector can diminish only gradually and the diversification of the employment structure can take place only on a modest scale. Going by the experience of developing countries and allowing for unemployment at 5 percent of the estimated total labor force in the year 1974, the employment structure of the national economy may be as shown in Table VI-1-2. The projected change has not been based on any figures for 1970, because no such data are available as yet. Instead, an attempt has been made to anchor the projections for 1974 on the firm October 1967 figures.

The rationale of the anticipated changes in employment by 1974 are:

(1) Domestic and personal services are likely to retain their relative position (6.8 percent) as a source of employment, although in absolute terms employment in this sector is estimated to increase by 238,000. This is equivalent to a growth rate of 4.4 percent annually. With the rising wages of domestic employees and increasing use of electric gadgets in the household, the number of full-time domestic helpers/family may decrease. For instance, families at present having three domestic servants may be able to afford only two within the next few years.

(2) Current mining explorations have the prospects of employing 55,000 additional workers during the Plan period. The total working population in mining is estimated to increase from 45,000 to 100,000 workers.

(3) Construction activity may gather considerable momentum, especially if the government will be able to realize the planned infrastructure investments and if the extent of mechanization in construction is slowed down. The annual increase in construction employment is estimated at 7.9 percent.

(4) Expansion of existing plants and new manufacturing plants may create sizeable additional employment. The approved projects of the BOI, as of December 31, 1969 will generate employment for 28,902 workers. Substantial employment for about 200,000 workers may also be generated in the small-scale and cottage industries.

(5) The additional goods and persons to be transported, the growing network of communication, and the expansion of business activity may also provide additional jobs in the transport, storage, communications and commerce sectors. The expansion in this sector's employment is at the rate of 6.4 percent a year.

(6) Due to an apparent overstaffing in certain sectors of the government and the drive to effect economies in the public service costs, the additional employment opportunities in the government services may be marginal or modest.

(7) Although the proportion of workers engaged in agriculture and allied activities is anticipated to come down to 55 percent of the total workers, additional employment in terms of absolute numbers seems to be inevitable.

4. Employment Promotion Strategy

The development and utilization of the country's human resources as factors for achieving a more rapid rate of economic growth deserve high priority. Unless proper attention is given to timely and orderly development of manpower, the achievement of the broader development goals will be difficult. This calls for an adequate manpower planning with emphasis on employment promotion not as an isolated activity but as an integral part of the overall socio-economic endeavor.

Often, in the experience of many developing countries, conflicts have been observed in the production aims and employment goals of development plans. It is conceivable to increase output through the use of production methods involving higher technology and larger capital inputs in disregard of additional employment opportunities, or even at the expense of employment. This Plan regards employment generation not just as a by-product of the general growth, but as a definite major objective. The development of human resources through training so as to meet the specific manpower needs of the national economy and to avoid imbalances between labor demands and supplies by occupations at specific time points is a logical extension of the employment promotion objective.

There should be a new orientation of the employment policies. Projects should be formulated and implemented in such a manner that more employment is generated without undue sacrifice of costs and efficiency. The quotation, "Never use a machine where one hundred men can do the

job as cheaply or nearly as cheaply" should have a meaningful place in the Philippine socio-economic structure. It is not enough that the government adopt this as a guiding principle. It should be included in the programming and decision-making process of the private sector as well.

5. Special Manpower Studies

The foregoing considerations deal with the additional employment generation in the country as a whole. However, it is pertinent to see the employment prospects of the present Plan in terms of different regions of the country. Although there are rough notions about the areas where the problems of unemployment and underemployment are more acute, these areas have yet to be identified and the extent of these problems in local terms have yet to be defined. It is hoped that the 1970 Census of population and housing will provide the answers.

Special groups of the country's labor force, such as the educated unemployed, may require special attention. It was estimated in the October 1967 Survey that about one-fourth of the total employed had completed fourth year High School or had some college education. Based on the estimate of unemployment at the beginning of the Plan which is about 1 million and applying the 25 percent ratio, the educated unemployed could be about 250,000. In addition, a significant proportion (not necessarily one-fourth) of the estimated 1.8 million growth of the labor force during the four years of the Plan will consist of educated persons. Considerable migration of the educated work force to other countries (the so-called "brain drain") has taken place during the past few years. A thorough study of this problem is necessary.

In order to duly motivate the skilled and technical workers to take up jobs in the barrios and other less attractive places of work, it may be necessary to develop suitable incentives. Even more basic is the need for a careful reexamination of the wage system and policies prevalent in the country, such that these are revised in favor of occupation in which workers are not easily attracted.

TABLE III-6-1: EMPLOYED PERSONS WHO WORKED DURING THE 12-MONTH PERIOD, BY NUMBER OF WEEKS WORKED AND BY MAJOR INDUSTRY GROUP DURING THE SURVEY WEEK

(In Percentages)[1]
OCTOBER 1966[2]

	Number of Weeks Worked (for at least 40 hours/week)				
	Less than 4 Weeks	4 to 19 Weeks	3 to 39 Weeks	4 to 52 Weeks	TOTAL
1. Agriculture, forestry, hunting and fishing	6.2	16.4	29.7	47.7	100.0
2. Mining and quarrying	—	11.1	4.8	84.2	100.0
3. Construction	2.0	11.1	25.6	61.4	100.0
4. Manufacturing	5.7	13.1	25.4	55.8	100.0
5. Electricity, gas, heat water and sanitary services	0.0	0.0	7.6	85.4	100.0
6. Commerce	6.9	11.1	19.1	63.0	100.0
7. Transport, storage and communication	1.8	4.3	12.9	80.9	100.0
8. Government, community business and recreational services	2.0	4.8	7.0	86.3	100.0
9. Domestic services	2.1	4.7	13.5	77.2	100.0
10. Personal services other than domestic	6.7	13.4	20.0	59.9	100.0
11. Industry not reported	12.1	22.4	46.6	18.9	100.0

[1] Due to rounding, the figures do not always add up to 100.0 percent.
[2] The figures in this table are derived from Table 41 of the October 1966 Labor Force Bulletin, page 61

TABLE III-6-2: EMPLOYMENT STRUCTURE OF THE WORKING POPULATION DURING 1967 AND 1974

	Employment in October 1967		Planned rates for mid-year 1974		Change over the seven-year-period (including four years of the Development Plan)		Sectoral employment index in 1974 with the base year 1967	Seven-Year Period Average Annual Increase in Employment in %
	In Thousands	% of total	% of total	In Thousands	% of total	In Thousands		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Agriculture, forestry hunting, fishing, etc.	6,330	58.3	55.0	7,838	—3.3	+1,508	123.7	3.4
2. Mining and manufacturing	1,268	11.7	13.0	1,853	+1.3	+585	146.1	6.6
3. Construction	276	2.5	3.0	428	+0.5	+152	155.1	7.9
4. Electricity, gas, water and sanitary services	30	0.3	0.5	71	+0.2	+ 41	236.7	19.5
5. Commerce	1,078	9.9	10.4	1,482	+0.5	+404	137.5	5.4
6. Transport, storage and communication	375	3.4	3.8	542	+0.4	+167	144.5	6.4
7. Government, community business & recreational services	769	7.1	7.5	1,069	+0.4	+300	139.0	5.6
8. Domestic and personal services, and industry not reported	741	6.8	6.8	969	—	+228	130.8	4.4
Total	**10,867**	**100.0**	**100.0**	**14,250**		**3,385**	**131.1**	**4.5**

SECTION IV

SECTORAL PROGRAMS

1. Agriculture
2. Industry
3. Transportation
4. Power
5. Telecommunications
6. Water Supply and Sewerage
7. Education
8. Housing
9. Health

Section IV — Chapter 1

AGRICULTURE

1. Agricultural Objectives

A combination of technological innovations and positive incentives made possible considerable achievements in agriculture.

The introduction of high yielding seed varieties has changed the face of Philippine agriculture. These new varieties, combined with yield-increasing inputs in the form of fertilizers chemicals and a more rational use of water, have shown their actual capability in raising farm output levels.

With technology as the prime catalyst, the elusive goal of self-sufficiency in rice was attained a year earlier than expected. Of more significance is the change effected by the technological innovations in outlook of the Filipino. Their continued acceptance of the products of research and technology has opened the gateway for revolutionizing the pace and pattern of agricultural production. There is now plenty of room for the expansion and diversification of agricultural output.

As the country enters the stage of the "Green Revolution," a sustained drive is essential to keep the momentum moving. Gains in output levels must continue unhampered in order to completely erase the spectre of hunger that stalks a rapidly expanding population as well as hasten the pace of the industrialization program. Concommittant with these changes are second generation requirements that must be provided during the Plan period.

Efficiency in agricultural production must be matched in the areas of distribution and marketing. The latter field should be continually improved to maximize the gains in output. Stability in the flow of agricultural commodity supply must prevail to assure a price level that is remunerative to farm producers and reasonable to consumers.

Greater efficiency in the production of agricultural products through improvements in yield rather than acreage expansion should be given more emphasis. This means reducing the unit cost of agricultural products, thus placing them in better competitive position in the world market.

2. Output Targets

Production in the agricultural section involves food and commercial crops, forestry and fishing products. In terms of physical targets, the following are the rates of growth during the plan period: 5.5 percent for

crop production, 2 percent for forestry and 8 percent for fishery. These physical targets, valued at 1967 prices, will bring about a growth rate of 6.2 percent annually in agricultural output. Artificial rain stimulation can prevent fluctuations in production due to weather conditions and make possible production stability.

3. Food Crops

Research has produced fertilizer responsive, short-strawed, and short-maturing rice varieties. Certified for multiplication by government research organizations are also high yielding varieties corn, mongo, peanuts, soybeans, sorghum, sugarcane, camote, onions, tomatoes and eggplants. With these new varieties, the potentials for productivity are enhanced.

Starting from such a low base, the areas of agricultural output expansion are considerable. Given the right price and sharing incentives, the farmers should increase their output of most crops by adopting new technology. It is estimated that the production of food crops will increase at the rate of about 6.2 percent annually while commercial crops will expand at the rate of 3.7 percent annually during the Plan period. At these rates the growth of crop production will be 5.5 percent per annum. (See Table IV-1-1)

(a) Rice

A really significant breakthrough in the utilization of new technology particularly for high-yielding rice varieties, has turned the Philippines from a net importer into a net exporter of rice within a brief span of about two years. The primary objective of the Plan is to maintain the momentum attained in production. Total palay output is planned to grow from 4.6 million metric tons in 1968 to 6.7 million metric tons in 1974, representing an annual growth of 6.5 percent. To attain desired output, the following constitute the rice plan:

(1) Saturation of Irrigated Ricelands

The key to the stabilization of rice production lies in the saturation of the irrigated rice-lands (1.2 million hectares effective area) with the non-seasonal high-yielding varieties and the strengthening of the present price support programs. At current farmers' performance with these varieties (average of 75 cavans/hectare), the national requirement could be met over the next four years by using these varieties on existing irrigated ricelands as well as in irrigating new areas. Closer adherence to recommended technology can further boost production to produce quality rice for exports.

(2) Increased Use of Certified Seeds

The drive for increased use of certified seeds will be intensified. Field personnel (APC and BPI) will work with authorized private seed producers supplying seeds at uniform prices. Seed processing facilities (BPI-Maligaya) will be improved.

(3) Expansion of Applied Research

The rate of dissemination of promoting varieties and improved technology will be accelerated through the expansion of applied research in farmers' fields, heretofore usually undertaken only in government stations (BPI, UPCA, APC, IRRI, etc.).

(4) Fertilizer Application

Increased and timely use of fertilizers and pesticides will be encouraged. In addition, planting of less fertilizer-intensive varieties of high-quality rice, recently found by researchers, will be diffused.

(5) Supervised Credit

Supervised credit will be expanded. Farmers' cooperatives or associations will be encouraged to transform small farmers, otherwise uncertain credit risks, into good risks collectively. The number of production technicians (APC and BPI numbering some 1,250) will be increased during the Plan period.

(6) Training of Technicians

Primary emphasis will be given on improving the harvesting, threshing, drying, milling, storage and marketing aspects. Government technicians will undergo specialized training along these lines. They will in turn train extension workers who will disseminate the new techniques to the farmers. The training will be undertaken by UPCA, BPI, RCA, and APC.

(7) Price Support

The government marketing policies affecting prices of rice are currently being revised on account of the change brought about by the *de facto* devaluation on the cost of production. An increase in end-prices needs to be reestablished to effect, on the one hand, a fair palay price for the farmers and, on the other, a reasonable rice price for the consumers.

(b) Corn

The UPCA has developed three outstanding corn varieties, namely var. 1, 2 and 4. The Mindanao Institute of Technology has also developed high-yielding corn varieties suited to the soil and climate of Min-

danao. The response of farmers to the high yielding varieties of corn has been as heartening as their response to high yielding rice varieties.

The market demand for corn is more varied than that for rice. White corn is being used extensively as food in the Visayas and Mindanao. Yellow corn is the main component of commercial feed mixes. Corn is being used in starch manufacture and processed into oil for the high income market.

The biggest increment in the demand for corn should come from the feed processing industry. A viable feed industry is the most important foundation of a strong livestock industry. Tariff protection may be necessary for the producers of feed raw materials, particularly corn, soybeans and fish meal. The Investment Priorities Plan of the BOI includes corn and soybeans as preferred areas of investment.

The primary objective of the corn program is to bolster production in support of the growing needs for feeds. The annual growth target is 8 percent. Total output will increase from 1.6 million metric tons in 1968 to 2.6 million metric tons in 1974. To attain this target, the following constitute the corn Plan:

(1) **Priority Areas**

For white corn, Mindanao (principally the two Cotabatos, the two Zamboangas, Lanao del Norte, Davao del Sur and Bukidnon) will be the area of concentration to supply the requirement for food and corn starch. Present in the region now is a corn grit milling capacity of at least 12,000 sacks a day. For yellow corn, priority areas will be the Ilocos Region, Central Luzon, Southern Tagalog including Mindoro Island, Camarines Sur and Iloilo.

(2) **Manpower Needs**

To man the program are 37 corn specialists and 400 corn production technicians. In Mindanao, which has less extension manpower, some 184 farmer-leaders have been trained to assist in the dissemination of improved technology in corn production. Some 200 more a year will be trained. The trained farmers will put up demonstration plots which will be jointly undertaken by UPCA, BPI, APC, BS, ACA, RCA and NFAC at Los Baños for the specialists and technicians and in the provinces for the farmer-leaders.

(3) **Improved Cultural Practices**

The use of high-yielding varieties, fertilizer and pesticides will be encouraged to meet production goals. Production of ordinary varieties will be given support through improved cultural practices such as thorough land preparation, cultiva-

tion and weeding, and timely control of pests and diseases. Credit will be provided especially to growers of the high-yielding varieties.

(4) Marketing

A thorough study of the marketing aspects for corn will be undertaken to identify critical problem areas. More processing facilities will be encouraged in the production areas with sizeable consumption such as in Mindanao.

(5) Research

The research work on the various aspects of corn production will be continued by BPI, UPCA, BS and agricultural colleges and universities. The search for varieties with increased tolerance to diseases will be a major undertaking. Farm management practices aimed at reducing production costs will be studied.

(c) Sorghum and Soybean

Corn, sorghum, and soybean could well constitute the "triumvirate" of the feed grain industry. Domestic production of soybean would save the country foreign exchange that annually goes into the importation of soybean meal required by some 10 commercial feed mills.

The current soybean meal consumption of these feed mills amounts to 65,000 tons, the production equivalent of 40,000 hectares. This is exclusive of the needs of small-scale factories producing protein-rich foods like soysauce, tahure, tausi, and tokwa.

Current demand (commercial feed mills alone) for sorghum is 60,000 metric tons yearly, the production equivalent of 20,000 hectares.

(d) Vegetables and Fruits

Most fruits and vegetables are short-maturing and can be raised as cash crops. In general, the supply of fruits and vegetables in the country is seasonal. There are marked fluctuation in prices. Market gluts usually occur during certain seasons of the year, resulting in greatly depressed farm prices. Any effort to program increases in output of fruits and vegetables should be matched by incentives in the form of distribution and market outlets. This is essential in order to minimize wide fluctuations in farm prices. The output target is for an annual growth of 8 percent annually.

The principal implementing agencies (BPI and APC) will develop a body of well-trained research and promotional personnel for field assignment involving these crops. More vegetable production supervisors will be trained. The BPI and APC will work hand in hand with the other extension marketing services (PACD, ACA, UPCA, GMTFM, NFAC) in pursuing the Plan.

(1) **Improved Varieties**

The search for new and better varieties and improved cultural techniques as well as applied research covering wider areas will be intensified (BPI and UPCA). Post-harvest handling and marketing, heretofore not given adequate attention, will be intensified (UPCA, BPI, GMTFM).

(2) **Seed Production**

Better techniques of seed production and handling will be given major emphasis. Superior varieties will be multiplied in government stations (BPI, APC, UPCA, Agricultural Schools) and reliable cooperator-farms. Seed production by the private sector will be encouraged through the provision of basic seed stocks and technical guidance from the government. This will be regulated and integrated into the seed certification scheme for rice, corn, and beans in order to ensure better prices for seed growers and quality seeds for farmers.

(3) **Area Specialization**

Area specialization for specific crops will be instituted to obtain full benefit from natural advantages and minimize market gluts. Scheduling of production in different provinces with varying climatic patterns will be undertaken to make the products available in the market on a year-round basis.

(4) **Export Promotion**

Export of specific items will be developed through large enterprises similar to those engaged in the production, processing, and export of pineapple and banana. In this regard, efforts will be exerted in revamping plant quarantine barriers which have for so long barred many fruits and vegetables from a number of markets like Japan and Europe. The NFAC with the support of the research establishment (BPI, UPCA, etc.) will take steps that would facilitate the entry of Philippine fruits and vegetables (like mango, melon, garlic, etc.) in the international market.

4. Commercial Crops

(a) Coconut

The major problems facing the coconut industry are: the cadang-cadang infestation, antiquated copra processing, low levels of technical inputs, unrejuvenated old plantations, and inefficient marketing. These problems have been the principal causes of the declining productivity of Philippine coconut farms. Between 1960 and 1967, the average national

yield per hectare went down from 5,680 nuts to 4,820 nuts or an annual decline of 2 percent. Adverse weather conditions also contributed to this decline in productivity.

The long-run viability of the coconut industry will ultimately rest on the efficiency of coconut farms. Competition against the coconut is two-pronged: first, competition from other natural fats and oils, particularly palm and palm kernel oil and soybeans; and second, competition from synthetics. While the coconut may enjoy certain advantages in its natural qualities, it will be better able to compete with substitutes if the coconut industry in general can reduce costs at the farm and processing stages.

There is an urgent need to replant the very old coconut plantations, especially in Luzon, with high-yielding seedlings. Considering the long gestation period involved in coocnut production, the effects of plantation renewal will not be felt within the Plan period.

(b) Sugar

The growing problem of inadequate cane supply is being felt in some sugar milling districts as a result of declining sugarcane yields. Adverse weather conditions have compounded the problem. Measures undertaken to overcome the problem are designed to improve the farm productivity through the use of greater quantities of fertilizers, the shift in the cultivation of existing varieties to that of the newly developed high-yielding canes of Philsugin, and the establishment of irrigation facilities. In the long-run, the viability of the sugar industry will depend on the effectiveness of cost-reducing measures being taken now.

As a means of generating additional increments in total output, primary emphasis will be on increasing productivity of existing sugar cane lands. Limited efforts will be done to increase output via acreage expansion since this approach usually takes a longer gestation period and requires a much larger investment than that required for increasing yield in areas already under cultivation.

The extensive use of high yielding varieties, fertilizers, chemicals, irrigation, etc., are primary factors that will contribute most toward increasing output levels.

The immediate target of the program is to meet both the domestic and basic export requirements. The long run goal is to increase production per hectare so that total requirements are met even if the cultivated area is reduced.

(1) High Yielding Varieties Cane Multiplication and Propagation.

Research and development work at Philsugin has produced a number of high yielding varieties with an average yield of around 150 piculs per hectare. These varieties will be used

for multiplication in order to provide sufficient number of cane points for commercial planting.

(2) **Increased Fertilization**

The current fertilizer usage rate by sugar planters in this country varies from .5 metric ton per hectare in many places in Luzon to 1.5 metric tons per hectare in some areas in Negros. Studies have demonstrated that average yield can be increased by about 10 piculs per hectare per additional 100 kgs. of ammonium sulphate or per kg. of nitrogen. The target areas are those milling districts where the rate of fertilizer usage is lower than Philsugin's recommendation and where current cane production does not fully utilize the milling capacities of the centrals.

(3) **Improved Irrigation**

At present, barely 5 percent of the 300,000 hectares planted to sugar is irrigated. Studies have shown that irrigation increases yield by some 18 piculs.

(4) **Synchronization of Farm and Mill Operations.**

Farm and mill operations must complement each other if maximum increase in production is to be attained. Closer coordination between millers and planters must be achieved in order to effect the synchronization of planted cane availabilities and mill capabilities.

(c) **Abaca**

The immediate outlook of the abaca industry is rather bleak. Synthetic fibers have made heavy inroads in the traditional market for Manila hemp, particularly in cordage. Sisal and henequen, two traditional hard fiber competitors of abaca, are also suffering from such inroads of synthetic, especially in agricultural twine for baling purposes. In order to maintain their share of the market for hard fibers, Brazil, Angola and Mozambique, the biggest producers of sisal and henequen, have been out-pricing Philippine abaca.

However, the plight of the abaca industry may not remain as hopeless as it appears. Certain developments in the pulp and paper field may yet save the industry.

The National Development Company has entered into an agreement with a private enterpreneur to establish a pilot plant for the production of pulp and paper from the abaca plant. The plant in Iligan reportedly uses about 15 metric tons of abaca pulp a day. The Investment Priorities Plan of the BOI includes the manufacture of long-fibered pulp and paper as one of its preferred areas. The technological advances in the use of

abaca as a raw material for pulp and paper, if further refined and perfected, may cushion the adverse impact of synthetics on the abaca industry.

Another area that should be looked into and given adequate incentives is the possible use of abaca for sack making purposes. The country has been importing sacks for use in the rice, corn and copra industries. With proper legislative protection of abaca from imported fibers, the manufacture of sacks made of abaca may help the industry regain its former stature.

5. Livestock

(a) Objective

The short run objective is to maximize production with emphasis on the fast multiplying animals like poultry and swine. The long term objective is to improve the quality of stocks in order to maintain and perpetuate an accelerated rate of production.

(b) The Four-Year Livestock Program

To assure the realization of targets within the program period, attention will be directed towards the following lines of action:

(1) **Consolidation of BAI Stock and breeding farms**

- Inventory of existing BAI stock and breeding farms to assess the efficiency of operations.
- Savings realized in the consolidation will be rechanneled to selected stations.

(2) **Reorganization of BAI Research**

- Inventory of studies undertaken in the past.
- Reorientation of present and future studies toward the development and adaption of new production management (i.e., housing structure design, poultry cage design, breeding, castration, nutrition, disease control, etc.) and marketing techniques.

(3) **Assessment of the Operation Costs of the Artificial Insemination Centers.**

(4) **Creation of a DBP Special Financing Scheme for Milk Collection Projects with RA 4041 as the Fund source.**

(5) **NFAC Monitoring of BAI Projects**

- NFAC will design a monitoring system for BAI projects.
- NFAC will require BAI (marketing unit) to submit to its offices regular and periodic reports according to the desired format as dictated in the monitoring setup.

(6) **Pilot Cattle Improvement Project**

- With the assistance of a UNDP mission the government will formulate a project proposal for a pilot cattle improvement project.
- The project will involve the intensification of cattle production on existing ranches (1,000 hectares and over) and on coconut plantations in the Cagayan Valley, Masbate, Mindoro, Davao, Cotabato and Negros provinces. Basic farm improvements in the form of fencing, corals, water facilities, dips and pasture improvement will be financed out of the proposed loan.

6. **Fisheries**

(a) **Objectives**

The development of the fishing industry is one important area of import substitution in the agricultural sector. The present program aims at bolstering fish output self-sufficiency levels.

Over the long-run, such infrastructures as fish terminal markets, fish landing facilities, ice and cold storage facilities, and processing plants will be established to serve as vehicles for the growth of the industry. The promotion of cooperative associations will be encouraged in order to cut down handling and distribution costs. Research to explore the potentials of deep sea, inland and marine fishing will continually be supported by the government.

(b) **The Four-Year Fisheries Program**

(1) **Fishery Management**

Regulatory work, like licensing of fishing boats and issuance of permits for fishpond operations, will be intensified by the Philippine Fisheries Commission (PFC) to facilitate increased fish production. In addition, fishery laws and regulations, particularly on the prevention of the use of explosives, fish poisons and fine meshed nets will be enforced.

(2) **Fishery Research**

To assess objectively the productivity potentials of the fishery resources, oceanographic studies, including the establishment and/or expansion of marine biological stations, will be conducted by the PFC in cooperation with the NSDB, Bureau of Coast and Geodetic Survey, and the UP College of Fisheries. Limnological studies will also be done as a complementary measure in the rehabilitation of overly exploited freshwater areas. In addition, studies along fish technology

and biology will be continuously pursued to promote the rapid domestic processing of fish and fish products.

(3) Demonstration Fish Farms and Fish Hatcheries

In line with the program of diffusing research results down to the fishpond operators, demonstration fish farms and hatcheries will be established by the PFC. This project will serve the type of adaptive research needed in increasing fish production.

(4) Public Swamplands for Fishpond Purposes

The Bureau of Forestry, Bureau of Lands and the PFC will coordinate in the disposition of public swamplands to legitimate operators in order to expand the country's fishpond base. The DBP, through its Fishpond Financing Scheme, will be called upon to grant loans for the development of swamplands into commercial fishponds.

(5) Off-Shore Fisheries

Off-shore fishing, particularly the exploration of tuna which is reportedly abundant in the territorial waters of the country, will be explored. A survey by the UNDP/FAO and the PFC will be conducted to determine the feasibility of large-scale tuna purse seining and live bait fishing. At the same time, the PFC will undertake demonstration work along new and better methods of fishing, using the five fishing vessels acquired through Reparations.

(6) Fish Planting and Dispersal

The PFC will continue to replenish depleted inland waters by stocking fingerling which will serve as "seeds" of future stock. This activity will be limited to common carp and other prolific varieties instead of milkfish and imported Asiatic carp.

(7) Ice Plants and Cold Storage Facilities

One of the limiting factors in fish production is the lack of ice plants and cold storage facilities. The peculiar characteristic of the fishing industry in the country is that fishermen must dispose of their catch immediately due to the lack of preservatives. The PFC will complete 11 ice plants and cold storage facilities to be leased to the private sector.

(8) Fish Terminal Market & Fishing Port

Initially, the government has selected Navotas, Rizal and Manila North Harbor as sites for the establishment of fish landing and fishing port projects, respectively. A 2 1/2 hec-

tare area has been reclaimed in Navotas to serve as the site for a new fish landing and market. In the case of the Fishermen's Port, an application for a loan has been made with the ADB.

7. **Forestry**

(a) **Accomplishments**

Some significant strides have been made in forest conservation. The selective logging program has been implemented in a total of 6.8 million hectares of forest license areas. Over 20.5 million hectares (of the total Philippine area of 30 million) have been classified. Of this total, 8.1 million hectares have been set aside as timberland of which almost 5 million are permanent forest reserves. Forest protection has been intensified. The number of kaingins detected increased by almost 300 percent over that of FY 1967.

The presidential directive of May 13, 1966 setting minimum limits of 20,000 hectares per timber license area and 25,000 cubic meters of annual harvest/licensee/year was fully implemented in FY 1967. About 710 small licensees were consolidated into 217 larger firms, and 123 small licensees exempted from the directive were merged into 58 working circles.

Reforestation of bare mountains is not moving as fast as desired because of insufficient financing. Only about 140,000 hectares were replanted in 1967. The replanting of the 1.5 million-hectare critical watersheds in Luzon will be given preferential attention.

The remaining 9.5 million hectares of unclassified public domain will be classified during the Plan period. The purpose is to set aside all the necessary timberland as permanent forest reserve to serve as a permanent base for the wood industries. Forest protection measures will also be intensified through public education programs designed to minimize wastage of wood products and diminution of water resources.

(b) **The Four-Year Forestry Program**

(1) **Forestry Protection:**

The twin goals of forest protection are: to stop the encroachment into forest lands and their illegal occupancy by squatters and settlers; and to prevent the illegal removal of forest products from the public forests by loggers and other forest exploiters.

If these goals are attained, critical watersheds will be under continuous protective forest cover. This will help minimize drought, floods, erosion and sedimentation which have wrought havoc to agricultural production. Furthermore, all harvests from the forests can be programmed and controlled

so that the maximum economic benefits can be achieved. The measures necessary to fully implement the forest protection project are two-pronged:

Resettlement and Training — This involves the resettlement of squatters irom forest areas to suitable agricultural land in cooperation with the Bureau of Lands and the introduction of manpower training among the kaingin farmers to teach them skills for alternative job opportunities.

Massive Public Information — With the various district forestry offices spread throughout the country as nuclei, a massive public information drive to supplement existing campaigns must be launched by extension foresters to: inform the farmers of the value of forests; acquaint them with the catastrophies associated with deforestation; and teach them skills useful in tree-farming and other tree-planting activites. The training of extention workers prior to launching the public information drive is essential.

(2) Forest Management (Selective Logging) and Watershed Management

Forest management, particularly the implementation of the selective logging program, is an effective means for attaining sustained yield, i.e., perpetual yield of timber without depleting the stock in the process of harvesting. It is designed to perpetuate not only the existence but especially the productivity of the forest.

Watershed management, if implemented properly, will make possible timber harvesting from watershed areas without the adverse effects of forest exploitation. This project is important in order that many critical watershed areas may be placed under multiple forestry use for maximum productivity. In some watershed areas, measures to conserve water and soil such as terracing, mulching, covercrop planting etc. will be introduced.

(3) Reforestation

Five million hectares of open lands, including some 1.5 million hectares of critical watersheds, are in need of reforestation. So far, about 153,000 hectares have been planted. The current annual planting rate is only 30,000 hectares. At this rate, it will take almost two centuries to reforest all the open mountain areas. Considering the urgency of restoring the forest both for the production of timber products and for the protection of watersheds, there is a need to modify present methods. Among these are:

Aerial seeding — This method appears more costly because it involves the use of expensive airplanes and because more seed materials are needed to allow for the high mortality in direct seeding. However, the added cost will likely be offset by the faster rate of forest growth. This seems to be the only way to reduce or eliminate the gap between rapid deforestation and slow reforestation. The Philippine Air Force could assist in this project.

Selective reforestation — Present method involves replanting of all open areas. Speed at minimum effort could be attained by reforestation of only the mountain ridges and summits, leaving the lower slopes vacant spaces. This approach combines artificial planting with natural regeneration to hasten the rate of forest restoration.

(4) Forest Products Research

Research efforts directed towards the reducing of wood wastage and the possible utilization of more non-commercial species must be accelerated so that maximum benefits can be derived from forest products.

6. Supporting Programs

On the average, the majority of Filipino farmers cultivate not more than two hectares. Their investment horizons are severely limited. They are greatly dependent on the government to provide many of the required physical resources that would make possible the expansion of their farming activities. Thus, the government is normally called upon to provide the infrastructure facilities required in the production and marketing of agricultural produce, such as: irrigation systems, farm-to-market roads, storage facilities, buying stations, terminal depots, ports and harbors. In addition to these, the government must establish and maintain adequately equipped research stations, provide statistical and marketing information services, maintain agricultural extension services, and provide credit and incentives.

(a) Land Reform Program

The implementation of the land reform program has been slow. The program has been greatly handicapped by shortages in financing and adequately trained manpower complement. Also, the integration of functions and services of the land reform agencies has not been fully achieved. However, a good start has been made.

Leasehold is now being implemented in 154 municipalities of 16 provinces, benefitting 195,000 palay farmers who work an area of 458,000 hectares. Some 26,000 have lease contracts with their landowners while the rest are still in the process of negotiating such contracts.

At present, the Land Authority is administering 17 public land settlement projects with an area of 400,000 hectares and involving 25,000 settler-families; 47 agricultural landed estates with an area of 66,000 hectares and involving 28,000 beneficiaries; and 49 residential estates with with a little over a thousand hectares and involving 21,000 beneficiaries. In 1968, the Department of National Defense transferred to the Land Authority 4 EDCOR farms with an aggregate area of about 12,000 hectares. The Land Authority recently opened 5 new settlement projects covering 120,000 hectares.

As of February 16, 1970, the Land Bank had acquired 21 private agricultural estates with an aggregate area of 2,218 hectares, benefitting some 859 farmers. Of the 21 estates acquired, 11 had been fully paid by the Land Bank. The total acquisition cost was ₱7.5 million.

The present program is an integrated plan of action designed to effect land tenure improvement and raise agricultural productivity.

Operationally, the present program has six aspects:

(1) **Leasehold**

Share-tenants are shifted into leaseholders. This is a preparatory period.

(2) **Upgrading of Land Estates and Settlement Projects**

The projects inherited by the Land Authority from the Land Tenure Administration and the National Resettlement and Rehabilitation Administration are being upgraded with the aim of investing land ownership titles upon the beneficiaries and simultaneously improving their productive capabilities.

(3) **Acqusition of Private Agricultural Lands**

The farmholdings worked by the lessees are purchased by the government through the Land Bank. These are later subdivided into economic family-size farms and resold to the lessees by the Land Authority.

(4) **Opening and Development of Public Lands**

The alienable and disposable portions of the public domain are segregated and declared either for small-scale farming opetions (settlement projects) or are made available to Land Bank bondholders for large-scale commercial type of farming operations.

(5) **Manpower and Personnel Development**

The organization of Land Reform agencies through a well-coordinated personnel development program has to be upgraded. A systematic education and training program is neces-

sary to equip them with basic skills to improve their productive capabilities.

(6) **Cooperatives**

Integral to the land reform effort is the revitalization of the cooperative movement in all its phases. This is essential since it will allow farmers to avail of scale in production and marketing.

Many quarters have proposed that the leasehold provisions of the Agricultural Land Reform Code be declared operative immediately in the whole country. This means abolishing share-crop tenancy as a form of land tenure among some 432,474 palay share-tenants and 174,402 corn share-tenants, working an aggregate area of 942,485 and 274,512 hectares, respectively.

In order to handle the country-wide program, an estimated annual budget of ₱75 million is needed to staff the land reform agencies, representing a 300 percent increase in their present budgetary outlays. In addition, the Land Bank needs to be capitalized and credit facilities to cover input requirements of the farmers have to be provided. The acquisition of the 1.2 million hectares, even at a very low average cost of ₱1,000 per hectare would mean an outlay of ₱1.2 billion. On the basis of palay and corn output, agricultural credit needs could easily amount to a ₱500 million a year program. The government does not have such resources at present.

Even with the specified financing, land reform agencies cannot cope with a 300 percent expansion in coverage within a year considering the manpower training and survey lags. In view of this, land reform must be treated as a long-term program.

(b) **Agricultural Credit**

During the period 1962-1966, total loans granted to the agricultural sector averaged ₱1,436 million annually while the estimated gross value of agricultural production (agricultural sector which includes fishery and forestry) average ₱5,591 million annually. This gives an average ratio of one unit of credit made available to the sector for every four units of estimated gross value of agricultural production. The total credit available to the sector was made primarily through the government banking institutions (DBP, PNB, ACA) and the private rural banks, with the former providing about 60 percent and the latter 40 percent of the credit needs.

During the Plan period, the total credit required for the sector will grow from ₱2,475 million in FY 1971 to ₱2,940 million in FY 1974. The amount of credit was further broken down into fixed and operating, using a study prepared by the Agricultural Plans and Programs Office, DANR. The findings showed a ratio of 1:3.5, i.e., for every unit of credit used for the purchase of capital goods, another 3.5 units were needed for operating capital.

Estimated Credit to be Made Available to the Agricultural Sector in Support of the Production Targets
(In Million Pesos)

Fiscal Year	Total Volume of Credit	Needed for Fixed Capital	Needed for Operating Capital
1971	2,475	550	1,925
1972	2,624	583	2,041
1973	2,780	618	2,162
1974	2,940	653	2,287

In providing credit to farmers, it will be the policy of the government to make maximum use of the rural banking system. This is designed both to promote a more rapid rate of growth of the system and to recognize the impact it has made on the financial system of the country, especially in the rural areas.

The Agricultural Credit Administration, whenever, feasible will concentrate its lending operations in areas not serviced by any rural bank. But it will assist the rural banks in financing the credit requirements of farmers (in the area it is serving) through a deposit of an appropriate amount (along the lines of the AGLF scheme). This will be especially necessary for rural banks in land reform districts where existing law dictates that the ACA should provide the credit facilities to newly converted share-tenants to leaseholders. It is believed that ACA will still be performing its functions with respect to RA 3844 if it appoints the rural bank in the area as its agent. However, the ACA will continue to support the FACOMA in the area. Such support will be directed at making the FACOMA a more efficient organization for the marketing of members' produce and the bulk purchase of farm inputs needed by its members. Considering existing laws, the above changes in ACA operations may not be immediately possible. Remedial legislation for the enactment by Congress will be needed in order to allow ACA to have systematic working relations with the rural banks.

The Philippine National Bank and the Development Bank of the Philippines will continue making available to agriculture loanable funds as special financing schemes. In addition, they will try to provide for all the long-term credit needs of the sector and other agriculturally based industries, i.e., industries using agricultural raw materials and those producing agricultural inputs like fertilizers, pesticides, etc.

(c) Irrigation Program

(1) Objectives

An additional area of some 301,880 hectares was irrigated during the past four years through the combined efforts of the National Irrigation Administration (NIA), Irrigation Service Unit (ISU), Presidential Arm on

Community Development (PACD), and the Agricultural Productivity Commission (APC), The program included the rehabilitation of existing system, completion of projects previously started, construction of new national and communal gravity projects, and installation of new irrigation pump units.

The primary objective of the four-year program is to expand the physical area to be served by improved irrigation and drainage system by about 330,000 hectares in FY 1971-1974, or an average of 82,500 hectares annually. The program target will be attained through:

(i) Rehabilitation of existing national and communal gravity irrigation system;

(ii) Completion of ongoing projects;

(iii) Construction of new gravity systems, both national and communal, as well as installation of additional irrigation pump units;

(iv) Implementation of projects with external financial assistance such as the NIA-ADB Water Management Project, NIA-UNDP Ground Resources Development Project, Upper Pampanga River Multi-Purpose Project, and NIA-ADB Cotabato Projects;

(v) Survey and feasibility study of new sites for future irrigation development.

(2) Organization

Efforts of all government agencies involved in activities concerning irrigation development will be coordinated.

The National Irrigation Administration (NIA) will be responsible for the survey, planning and designing, and supervision of construction of projects as well as subsequent operation and maintenance of the gravity irrigation systems. NIA will continue to engage the services of private contractors who will be screened and selected through public bidding. When feasible, the services of the Army Corps of Engineers and/or Philcag may be availed of.

The Irrigation Service Unit (ISU) will be responsible for activities relating to the installation of irrigation pumps. The ISU will receive applications for pumps, conduct surveys of proposed sites to determine their technical feasibility and prepare plans and designs for the guidance of pump installation by applicants. ISU will provide occasional supervision in the installation and operation of pump projects. The expenses for canalization, installation, operation, and maintenance will be on the owner's accounts. In addition to the ISU's program, the Development Bank of the Philippines (DBP) will also grant loans for pump irrigation purposes in this regard, the DBP is seeking a foreign loan amounting to $3.5 million.

The Presidential Arm on Community Development (PACD) will undertake the construction and installation of minor gravity and pump systems on a self-help, group-action basis. The PACD and the local and/or provincial governments will furnish the needed materials not available in the locality, and the barrio council will furnish the labor and additional materials which are locally available.

The Agricultural Productivity Commission (APC) will perform minor role in irrigation development, which will stress the organization of farmer's irrigation associations.

The Bureau of Soils (BS) will undertake the survey, planning, designing and supervision of the construction of farm ponds for water and soil conservation purposes. The impounded water will be utilized for irrigation, domestic water supply, fish culture, and recreation.

(3) The Four-Year Irrigation Program

The NIA will implement the following special projects:

Upper Pampanga River Project

The project will consist of the Pantabangan dam reservoir, Talavera diversion system, Maringalo dam and reservoir, Pantabangan power plant and transmission system, irrigation works, and fish conservation and recreation facilities.

The project will provide and regulate water for the integrated operation of existing irrigation systems and additional new areas in Central Luzon. Upon the completion of the project, some 76,000 hectares would be provided year round irrigation. The implementation of the power plant will provide electric energy to be utilized mainly by the deep well pumps to exploit groundwater for irrigation.

The project costs will include the foreign currency component estimated at $60 million and a local currency counterpart of ₱200 million to be provided by the Philippine Government. The World Bank had committed a loan of $34 million for the structures of the irrigation phase. The cost of the power phase will be negotiated as additional loan, depending on the results of studies.

Present activities in the project include construction of access road to the dam site, detailed structure site surveys, studies on the resettlement of people who will be adversely affected by the project. An American consulting firm, selected by the Upper Pampanga River Project Coordinating Committee and cleared by the World Bank, is undertaking the final engineering studies.

R.A. 5499, approved on June 8, 1969, authorizes the NIA, in cooperation with the NPC, NWSA and the BPW, to undertake

the construction of the project, operate and administer all facilities involved, and determine priorities in the use of water.

NIA-UNDP Groundwater Development Project

This involves the establishment of two pilot projects in Nueva Ecija which will tap groundwater resources for irrigating good ricelands and the conduct of pre-development surveys in five provinces to assess their groundwater potential for future development. The pilot project to be set up in Guimba will provide tubewell irrigation for 1,000 hectares of ricelands that are not irrigated at present; the other will be established in Peñaranda where 2,000 hectares will be provided full irrigation from surface and groundwater supplies.

The data derived from the results of the operation of these pilot projects will serve as a basis for formulating a future proposal for the external financing of a groundwater development project which will provide tubewell irrigation to some 40,000 hectares within Guimba, Licab, Cuyapo, Peñaranda and Sto. Domingo in Nueva Ecija and other places adjoining the service area of the Upper Pampanga River System.

These NIA-UNDP pilot projects will generate an additional irrigable area of 3,000 hectares by the third year of the irrigation program, costing approximately P4 million in counterpart funds and $2 million UNDP grant.

NIA ADB Cotabato Project

This is a package project consisting of three separate, smaller ones within the Cotabato River Basin. The Banga River irrigation project will irrigate about 1,860 hectares within the municipalities of Banga and Norala, South Cotabato. The service area is a portion of the vast Allah Valley which is proposed for future development as a part of a long-range program for the Cotabato Basin. The Marbel River irrigation project will serve an area of 2,720 hectares in the municipality of Koronadal, South Cotabato. The M'lang River irrigation project will cover an area of 2,850 hectares in the municipality of M'lang, Cotabato. The ADB has approved a loan of $2.5 million to cover the foreign currency requirements of the project.

Each project will have its diversion works, conveyance (concrete and earth) channels, canal structures and farm ditches, with their corresponding regulating measuring devices. They will also be provided with drainage facilities and access roads.

In the Marbel Project, an additional feature will be a 740-kilowatt hydropower plant to be installed at a section of the main

canal. The energy will augment present power needs of Koronadal which is being provided by a 500 KW diesel power plant.

One pilot demonstration farm will be set up for the Banga-Marbel area and another for the M'lang project area. These demonstration farms will give farmers the opportunities to improve their practices and increase farm income through participation in production projects to be assisted by the demonstration farm and extension staff.

Feasibility study of Magat Multi-Purpose

The principal features of the study include the construction of a high dam across the Magat River, about 55 km. upstream of its confluence with the Cagayan River, to create a reservoir for regulating the run-off for: generating a power potential of 100,000 Kw; allowing the irrigation of 74,000 hectares of agricultural lands on a year-round basis; and controlling 70 percent of the floods.

(d) Artificial Rain Stimulation Program

The severe drought in crop years 1968 and 1969 affected adversely agricultural production. Total rainfall during these periods were 73 and 76 inches compared to the normal annual average of 100 inches. Severely affected by the decline in rainfall were coconut, sugar, palay and corn production.

Artificial rain stimulation, through cloud seeding, was introduced in crop year 1970 by Philsugin in cooperation with the Weather Bureau and the Philippine Air Force. It has been demonstrated that drought can be prevented. Included in the Plan is the purchase of 5 aircrafts, at an estimate cost of ₱2 million, to be used for artificial rainmaking.

Table IV-1-1: **PHYSICAL TARGETS OF THE AGRICULTURAL PROGRAM: FY 1971-74**
(In Thousand Metric Tons)

COMMODITY	1968 Actual	1971	1972	1973	1974	Ave. Growth Rate
Food Crops	9,192	10,950	11,620	12,342	13,127	6.2
Palay	4,561	5,510	5,868	6,249	6,655	6.5
Corn	1,619	2,039	2,202	2,378	2,568	8.0
Fruits and Nuts	1,281	1,531	1,618	1,715	1,818	6.0
Rootcrops	1,331	1,392	1,413	1,434	1,456	1.5
Vegetables	275	328	348	369	391	6.0
Coffee	43	52	55	59	63	6.6
Sorghum	—	4	9	15	30	72.2
Soybean	—	2	5	16	34	127.5
Others	84	97	102	107	112	5.0
Commercial Crops	4,017	4,406	4,583	4,718	4,910	3.7
Copra	1,542	1,678	1,737	1,798	1,861	3.5
Desiccated Coconut	88	100	104	108	112	3.9
Centrifugal, Muscovado and Molasses	2,161	2,385	2,495	2,559	2,679	3.8
Abaca	135	141	143	145	147	1.4
Virginia Tobacco	24	24	24	25	25	1.4
Native Tobacco	48	54	56	58	60	3.6
Rubber	14	17	18	19	20	5.7
Others	5	6	6	6	6	1.0
Total Crops	13,209	15,356	16,203	17,060	18,037	5.5
Forestry (logs)*	4,568	4,847	4,944	5,043	5,144	2.0

*In million board feet.

Table IV-1-1: (Continued)

COMMODITY	1968 Actual	1971	1972	1973	1974	Ave. Growth Rate
Fishery	938	1,180	1,275	1,378	1,487	8.0
Commercial	407	512	553	598	645	8.0
Fishpond	87	109	118	127	137	7.9
Municipal and Sustenance	444	559	604	653	705	8.0
Livestock						
Population (no. in thousand)						
Cattle	1,644	1,823	1,887	1,953	2,021	3.5
Carabao	4,173	4,626	4,788	4,956	5,129	3.5
Poultry	71,395	92,458	100,779	109,849	119,735	9.0
Hogs	6,090	7,779	8,440	9,157	9,935	8.5
Others	906	933	942	951	960	1.0
Slaughtered (no. in thousand)						
Cattle	212	235	243	251	260	3.5
Carabao	30	33	34	35	36	3.5
Poultry	32,566	42,174	45,970	50,107	54,617	9.0
Hogs	6,715	8,577	9,306	10,097	10,955	8.5
Others	84	87	88	89	90	1.0
Dressed Weight (in MT)	361,687	457,255	494,604	535,091	578,987	8.2
Cattle	23,299	25,833	26,737	27,672	28,641	3.5
Carabao	4,197	4,654	4,817	4,985	5,160	3.5
Poultry	35,823	46,391	50,567	55,118	60,078	9.0
Hogs	295,440	377,362	409,438	444,240	482,001	8.5
Others	2,926	3,015	3,045	3,076	3,107	1.0
Fresh Milk	—	25.9	26.2	29.3	33.2	8.6
Poultry Eggs	—	130.0	138.5	157.0	167.2	8.8

Table IV-1-2: **COMPARISON OF PER CAPITA PRODUCTION BASED ON PLANNED TARGETS AND EFFECTIVE DEMAND, FY 1971 and 1974**

COMMODITY	Elasticity Coefficient [2]	1971			1974		
		Production Targets (1)	Effective Demand [1] (2)	Ratio (1) ÷ (2)	Production Targets (1)	Effective Demand [1] (2)	Ratio (1) ÷ (2)
Fish and other marine products	0.7	31.2	36.1	0.86	35.5	38.0	0.93
Rice, milled	0.5	89.9	89.8	1.00	97.9	93.2	1.05
Corn, shelled	0.2	51.2	25.8	1.98	58.1	26.2	2.22
Roots and tubers	0.1	36.8	35.3	1.04	34.8	35.6	0.98
Sugar and Syrup	1.2	48.5	19.2	2.53	49.6	21.0	2.36
Vegetables	0.4	8.7	28.7	0.30	9.3	29.6	0.31
Fruits	0.7	40.3	48.0	0.84	43.4	50.6	0.86
Meat	1.1	12.1	19.7	0.61	13.8	21.4	0.64
Milk and milk products	1.5	0.65	16.8	0.04	0.75	18.7	0.04
Eggs	1.0	3.3	2.5	1.32	3.8	2.7	1.41

[1] Estimated on the basis of income elasticity of demand and projected growth in real per capita income.

[2] Based on the estimates of the FAO as published in the *Agricultural Commodities Projections for 1957 and 1985*, CCP 67/7 Vol. II, August 1966.

Table IV-1-3: FOUR-YEAR IRRIGATION PROGRAM: FY 1970-1971 TO FY 1973-1974
Annual Investment Requirement
(Cost in Millions at Current Prices)

	FY 1970-1971	FY 1971-1972	FY 1972-1973	FY 1973-1974	Total Four Years
I. *EXISTING LOANS*					
A. Upper Pampanga River Project	2.80	9.10	14.60	7.40	33.90
B. NIA-ADB Cotabato Projects	2.20	0.30	—	—	2.50
II. *PROPOSED LOANS*					
Local ₱					
A. NIA-USFL 400					
a. Rehabilitation	1.00	1.10	15.58	7.94	25.62
b. Completion Projects	1.60	—	—	—	1.60
c. New Projects (National)					
1. Angat Ext., Bulacan	0.50	0.50	—	—	1.00
2. Maranding, Lanao del Norte	—	2.70	—	—	2.70
3. Oco, Catanduanes	—	0.60	—	—	0.60
4. Dolores (Jicontol) Samar	—	0.50	—	—	0.50
5. Sta. Catalina, Neg. Or.	—	0.60	0.50	—	1.10
6. Titay Valley, Zamb. Sur	—	0.80	0.70	—	1.50
7. Catubig (Hinaga) Samar	—	0.80	0.80	—	1.60
8. Barotac Viejo, Iloilo	—	0.60	—	—	0.60
9. Cawayan-Cabao, Sorsogon	—	0.90	—	—	0.90
10. Catigbian, Bohol	—	0.50	0.50	—	1.00
11. San Isidro-Claver, Sur Norte	—	0.70	—	—	0.70
12. Tagum, Davao del Norte	—	—	1.93	—	1.93

Table IV-1-3 (Continued)

	FY 1970-1971	FY 1971-1972	FY 1972-1973	FY 1973-1974	Total Four Years
13. Chico East, Cagayan	—	—	—	1.90	1.90
14. Cateel, Davao Oriental	—	—	—	1.20	1.20
15. Borboanon, Surigao del Sur	—	—	—	1.10	1.10
16. Salvacion, Agusan	—	—	1.29	—	1.29
17. Lawigan, Leyte del Sur	—	—	—	0.60	0.60
18. Sibalom, Iloilo	—	—	—	0.70	0.70
19. Togo, Surigao del Sur	—	—	—	1.56	1.56
20. Labu-Labu, North Cotabato	—	—	—	1.90	1.90
21. Labu-O, North Cotabato	—	—	—	1.10	1.10
SUB-TOTAL (NEW PROJECTS)	**0.50**	**9.20**	**5.72**	**10.06**	**25.48**
B. IRRIGATION SERVICE UNIT (Pumps) Foreign Loan ($)	2.30	2.00	2.00	2.00	8.30
C. Feasibility Study of Magat Multi-Purpose Project	—	0.20	0.20	—	0.40
D. Pump Irrigation (DBP)	3.5	—	—	—	3.50
III. *REPARATIONS* ($)					
Lump Sum for Construction Materials (N.I.A.)	1.00	2.00	3.00	2.00	8.00
IV. *CORPORATE/AGENCY INCOME*	—	—	—	—	—
V. *CORPORATE BOND-NIA Bond Fund* (P)					
A. NIA-ADB Cotabato Projects	4.60	4.83	—	—	9.43
B. NIA-UNDP Groundwater Development Project	1.75	1.57	0.42	0.36	4.10

Table IV-1-3 (Continued)

	FY 1970-1971	FY 1971-1972	FY 1972-1973	FY 1973-1974	Total Four Years
C. Feasibility Study of Magat Multi-Purpose Project	—	0.50	0.50	—	1.00
D. New Projects (National)					
1. Bito, Leyte del Norte	1.30	1.30	—	—	2.60
2. Maranding, Lanao del Norte	2.60	—	—	—	2.60
3. Lupon, Davao Oriental	1.58	1.60	—	—	3.18
4. Dolores (Jicontol), Samar	0.70	—	—	—	0.70
5. Mambusao, Capiz	1.30	1.40	—	—	2.70
6. Molino, Batangas	0.50	0.60	—	—	1.10
7. Baggao, Cagayan	1.90	2.00	—	—	3.90
8. Rugaan, Lanao del Sur	1.50	1.50	1.40	—	4.40
9. Barotac Viejo, Iloilo	—	—	0.60	—	0.60
10. Cawayan-Cabao, Sorsogon	—	—	0.90	—	0.90
11. Magat West, Isabela	1.40	1.50	1.60	—	4.50
12. Nayom, Zambales	—	0.90	0.90	—	1.80
13. San Isidro-Claver, Sur.-Norte	—	—	0.50	—	0.50
14. Tagum, Davao del Norte	0.87	1.30	—	—	2.17
15. Compostela, Davao del Norte	—	—	0.90	0.80	1.70
16. Ato, Quezon	—	—	0.90	0.90	1.80
17. Ditsan-Ramain, Lanao del Sur	—	—	0.80	0.80	1.60
18. Taki-Sua, Albay	—	—	0.80	0.70	1.50
19. Bobon, North Samar	—	—	0.40	0.50	0.90
20. Chico East, Cagayan	—	1.00	1.00	—	2.00
21. Panskuyan, Aklan	—	—	1.10	1.10	2.20
22. Balatukan, Misamis Oriental	—	—	0.90	0.90	1.80

Table IV-1-3 (Continued)

	FY 1970-1971	FY 1971-1972	FY 1972-1973	FY 1973-1974	Total Four Years
23. Sarrat-San Nicolas, Ilocos Norte	—	—	1.60	1.70	3.30
24. Malaig, Lanao del Sur	—	—	0.90	0.90	1.80
25. Sinundungan, Cagayan	—	—	0.90	0.90	1.80
26. Lituban, Zamboanga Norte	—	—	—	0.80	0.80
27. Libmanan, Camarines Sur	—	—	1.00	1.10	2.10
28. Saug, Davao del Norte	—	—	1.00	1.10	2.10
29. Salvacion, Agusan	—	—	—	1.70	1.70
30. Ano, Pangasinan	—	—	—	1.00	1.00
32. Kabulnan, North Cotabato	—	—	—	0.84	0.84
33. Dumawan, Agusan	—	—	0.98	0.90	1.88
34. Polangui, Bukidnon	—	—	—	1.50	1.50
SUB-TOTAL (New Projects)	13.65	13.10	19.08	19.64	66.47
VI. *SPECIAL PROJECTS*					
A. Irrigation Service Unit (Pumps (₱)	0.40	0.40	0.40	0.50	1.70
VII. *LOCAL (₱)*					
a) Upper Pampanga River Project	30.20	47.50	51.90	6.30	137.90
b) Communal Irrigation Projects	2.00	3.00	3.00	3.00	11.00
c) Irrigation Service Unit (Pumps)	2.00	4.00	4.00	4.00	14.00
TOTAL PESOS	₱60.00	₱87.20	₱102.60	₱55.80	₱305.60
TOTAL DOLLAR	$ 9.5	$11.60	$ 17.80	$ 9.40	$ 47.80

Table IV-1-4: FOUR-YEAR IRRIGATION PROGRAM: FY 1970-1971 TO FY 1973-1974

PHYSICAL GOALS

PROJECT	FY 1970-1971	FY 1971-1972	FY 1972-1973	FY 1973-1974	Total Four Years
I. *National Irrigation Administration*					
A. Rehabilitation	500 Has.	1,000 Has.	7,000 Has.	2,500 Has.	11,000 Has
B. Completion Projects	12,800 Has.	—	—	—	12,800 Has.s
C. New Projects (National)	—	20,500 Has.	25,200 Has.	24,900 Has.	70,600 Has.
D. Communal Irrigation Projects	4,000 Has.	6,000 Has.	6,000 Has.	6,000 Has.	22,000 Has.
E. Special Projects	—	—	—	(31,000 Has. (Old) (46,000 Has. (New	77,000 Has.
1. Upper Pampanga River Project					
2. NIA-UNDP Groundwater Development Project	—	—	—	3,00 Has.	3,000 Has.
3. NIA-ADB Cotabato Project	—	7,430 Has.	—	—	7,430 Has.
SUB-TOTAL (NIA)	17,300 Has.	34,930 Has.	38,200 Has.	113,400 Has.	203,830 Has.
II. Irrigation Service Unit (Pumps)	16,880 Has.	22,470 Has.	21,940 Has.	21,970 Has.	83,260 Has.
TOTAL	34,180 Has.	57,400 Has.	60,140 Has.	135,370 Has.	287,900 Has.

Section IV — Chapter 2

INDUSTRY

The industrial program is merely an indicative plan. As such, it confines itself to spelling out the magnitude and direction that private investment should take to enable the industrial sector to achieve its development objectives, and defining the policy measures the government must initiate to influence the flow of investments into areas which will permit rational and orderly development of the sector.

Under this concept, the private sector is expected to assume the task of industrial development. The government's role will be limited to improving the investment atmosphere and in helping the promotion of projects which are commercially viable and essential to the industrial targets of the plan. Some tools available to the government for this purpose are the provision of adequate incentives, credit, and infrastructure facilities.

1. Objectives and Output Targets

The specific objectives of the industrial plan are as follows:

(1) To help alleviate the balance of trade problem by encouraging industries which are export-oriented and heavily utilizing indigenous raw materials;
(2) To promote the development of intermediate and capital goods industries;
(3) To encourage industries which have the greatest potential for backward and forward linkages;
(4) To encourage industries which will subject traditional exports to further processing; and
(5) To generate greater employment opportunities.

The targets of the mining and manufacturing sectors in terms of contributions to the net domestic product and investments are given in Table IV-2-1. For the plan period, the growth of mining is expected to accelerate, with output at the end of the fourth year showing an increase of about 60 percent over that of the first year. The estimated share of mining in the NDP, at constant 1967 prices, is ₱714 million in FY 1971 and ₱1,137 million in FY 1974. This is based on the planned expansion of existing mines and the probable operation of new ventures.

Faced with adjustment problems brought about by the floating exchange rate, the manufacturing sector will have to bear up with an average growth rate of only 6.2 percent during the Plan period. Fiscal years 1970 and 1971 are periods of stagnancy in manufacturing growth. The succeeding fiscal years, however, should be periods of high growth levels. By then, priority projects started earlier shall have become operational.

Mining and manufacturing will have a rising share of the NDP, from a depressed level of 18.9 percent in FY 1970 to 20.5 percent in FY 1974.

The targets include an improvement of the ICOR relationship. Currently placed at 9.2, the ICOR (lagged one-year) is anticipated to decline to a low of 3.32 in FY 1974. Efficiency will be attained through judicious allocation of new investment resources, together with greater utilization of unused production capacities. The improvement in the ICOR will be derived from the operations of the high priority projects of the Plan which have capital-output ratios at 2.1 or less.

Basic estimates of capital investments for mining and manufacturing are derived from statistics on machinery acquisitions attributable to either sector, plus an assumed proportion of non-dwelling constructions.

2. Structure of the Industrial Sector

(a) Past Patterns of Growth

To define clearly the desirable course of future industrial development, a brief summary of the historical patterns of industrial growth is given here. From 1946 to the mid-1960's the development of the industrial sector was achieved through deliberate strategy of import substitutions. The policy instruments chosen to achieve this objective included fiscal incentives such as tax exemption for "new and necessary industries," import and foreign exchange controls, and tariff protection.

The net result of these protective instruments was an impressive increase in industrial output and the creation of a substantial and well-diversified manufacturing base. The share of the manufacturing sector in the NDP rose from 7.3 percent in 1950 to 18.0 percent in 1960. The structure of manufacturing also underwent a drastic change, with a noticeable shift from a relatively high food and beverage production to a more balanced output composition. The share of "miscellaneous manufactures" (e.g., producer and durable goods such as metals, fuel, appliances, wood and paper products) rose from 14.28 percent in 1948 to 45.78 percent in 1961.

Value of Products Sold
(Percent Distribution)

	1948	1961
Food and Beverage	73.11%	32.11%
Clothing	9.57	10.62
Household Items	3.04	11.49
Miscellaneous	14.28	45.78
Total	**100.00%**	**100.00%**

Despite the impressive gains in industrial production, the complement of policies initiated in the 1950's encouraged an industrial structure which served mainly the domestic market and depended heavily on imports. The heavy import dependence of the firms set up during the period of controls is reflected in the change in the import pattern over the decade of the 1950's. The importation of consumer goods which accounted for 50.1 percent of total imports at the start of the decade dipped to 13.8 percent by 1960. On the other hand, the importation of capital equipment and industrial raw materials accounted increasingly for a larger share of the total import bill. By the end of the decade, about 86 percent of total imports was in the form of capital equipment and raw materials.

Although the industrial sector is still dominated by final manufacturing, the past few years have seen the establishment of an increasing number of intermediate industries. The production of durable goods more than doubled from 1960-1968 and expanded at a faster rate than the production of non-durable goods (mostly consumer goods).

Significant gains were registered from 1960-1968 in the production of wood and cork (except furniture and fixtures); non-metallic mineral products, including clay and cement products, concrete and stone products, glasswares and glass containers, cement, and limestone products; metal products and machinery, including electrical and transport equipment.

(b) Future Directions of Industrial Growth

Indiscriminate import substitution as pursued in the 1950's cannot continue. Industry needs to restructure itself along lines which will permit sustained growth. In manufacturing, this restructuring will mean the backward integration of manufacturing activities, i.e., the shift from mere packaging and assembly operations to the production of intermediate and capital goods. It also involves the development of industries which are solidly based on indigenous raw materials as well as those with high export potentials. In the case of the mining sector, the restructuring should take the form of further domestic processing of mineral output. This involves the establishment of rolling, smelting and refining plants for various ores which are exported at present in primary form.

The shift from the final stages of production to the intermediate and basic stages has been accelerated by the prevailing industrial incentives policies of the government. This shift is shown in the composition of projects which have so far been registered with the Board of Investments (BOI) in order to avail of the incentives offered under the Investment Incentives Act. Of the 157 projects* registered with the BOI from July 1, 1968 to December 31, 1969, 113 will be engaged in the production of a wide spectrum of intermediate and capital goods (See Table IV-2-2).

*Projects registered totalled 161. The difference represents projects which are primarily agricultural.

The restructuring of the industrial sector through the development of industries which are based on domestic raw materials as well as those with high export potentials is also underway. Practically all of the raw material needs of the 80 agro-industrial projects will be met from local sources. Even the capital goods industries registered with the BOI show a very high percentage utilization of domestic raw materials.

3. The Four-Year Program

Total investment in mining and manufacturing over the four-year period will be about ₱14.2 billion, in current prices. The bulk of investments will be channelled to high priority projects which are listed in the BOI's Third Investment Priorities Plan. The breakdown of total investment by group of projects is given below:

Investment Requirement of the Industrial Program, FY 1971 — FY 1974
(In Million Pesos at Current Prices)

	Investment	% Share
BOI Projects*	₱ 9,814	60.09%
Non-BOI Projects	4,190	29.50
Industrial Research	200	1.41
T o t a l	**₱14,204**	**100.00%**

Investment Priorities Plan

While the industrial program covers the entire mining and manufacturing sectors, direct government assistance will be centered on the priority projects which are identified in the Third Investment Priorities Plan. (See Tables IV-2-4 and IV-2-5).

Since its establishment, the BOI has drawn up three Investment Priorities Plans (IPP). The first Plan was approved by the President on June 1, 1968 and remained in force until the end of April 1969 when it was superseded by the second Plan. The third Plan, which forms the core of the Industrial Program, was approved by the President on March 28, 1970 and became operative on May 1, 1970. Each IPP is a continuation of its predecessors.

The first IPP listed 59 preferred industrial ventures, 19 of them pioneer. The second IPP retained 54 of the industries in the first Plan and added 39 new ones. The third IPP includes 67 industries which were previously listed in the first and second IPP and added 21 new preferred areas.

*Excludes projects which are primarily agricultural.

The second IPP, which contained refinements of the first Plan, introduced a scheme of integrated industries in food products, wood products, basic metals, and chemicals. Emphasis was placed on industrial and export development based on the processing of indigenous raw materials, such as agro-forestry and minerals. It contained 59 industries which were major users of local raw materials. Schedule A of the Plan, composed of agricultural, forestry, and fishing industries, listed investment areas which were many steps removed from the traditional emphasis on primary production. Schedule B listed mineral processing activities, with linkage between the mining operation and the subsequent processing operations. Schedule C was designed to encourage the manufacture of intermediate products, such as metal products and chemicals like phthalic anhydride, nylon, polystyrene and polyvinyl alcohol.

Industries which are not specified in the IPP may still be included under Schedule D provided that they meet the following criteria: (1) They export finished products that are completely processed and manufactured locally, with at least 70 percent of the peso value of their total content being of Philippine raw material; (2) They export more than 50 percent of their total production; (3) They do not enjoy any preferential treatment arising from any agreement or arrangement between the Philippines and the importing country.

A new category, Schedule E, was introduced to encourage existing firms with excess capacities to engage in exports by granting them export incentives. However, these firms must be in an industry whose exports did not exceed ₱60 million in 1967 and are not otherwise qualified in the other schedules.

The third IPP continues the orientation of the previous IPPs and incorporates, like the second IPP, five schedules of activities. Eighty-eight priority areas are listed in the third IPP. These are divided into 33 agro-industries; 19 mining and mineral processing industries; and 36 other manufacturing industries.

A listing of the industrial projects registered with the BOI until December 30, 1969 is shown in Table IV-2-2. The 161 approved projects involve a total investment cost of about ₱3 billion, of which ₱2.3 billion or 77 percent represents investments in fixed capital assets and the remaining ₱0.7 billion or 23 percent represents working capital requirements. Approximately ₱1.2 billion of total investments are intended for the mineral processing sector. Substantial investments will be channelled to the following industries; primary steel (₱602 M); nickel (₱343 M); and aluminum smelting (₱128 M). In the manufacturing sector, the most substantial investments are allocated to the following industries: cold-rolled strips and coils (₱395 M); industrial chemicals (₱120 M); and lubricating oil (₱119 M).

When the approved projects become operational, domestic self-sufficiency will be attained in the following products: newsprint, fiberboard, methanol, ammonium chloride, sodium tripoly-phosphate, hydrogen peroxide, sanitary wares, grinding balls, laterite ores, jute or polypropylene bags, and glazed tiles.

4. Financing the Program

(a) Financial Requirements

The financial requirements of mining and manufacturing are given below:

(In Million Pesos at Current Prices)

	FY 1971	FY 1972	FY 1973	FY 1974	Total
Fixed Capital Formation	2,539	2,738	2,951	3,185	11,413
Working Capital	634	684	737	736	2,851
Total	**3,173**	**3,422**	**3,688**	**3,921**	**14.264**

These fixed capital requirement estimates assume no further deterioration in the exchange rate during the Plan period. The working capital requirements are assumed to be one-fourth of the fixed capital requirements.

(b) Sources of Funds

The four fiscal years of the Plan will require total fixed capital investment in mining and manufacturing ventures amounting to ₱11.4 billion. About 77 percent of this will be financed from domestic savings and the remaining 23 percent through gross foreign direct investments and borrowings.

Inflow from Abroad

Inflow of direct foreign investments are forecast to average roughly $10 million a year. Foreign borrowings consisting of direct loans, machinery purchases on deferred payments, and other forms of credit are estimated at the rate of $100 million a year. These estimates are consistent with the balance of payments projections.

Domestic Savings

There is no question that the savings available to the mining and manufacturing sectors can adequately meet the portion of the investment target to be financed from domestic sources. The corporate sector alone can generate as much as 64 percent of the total savings required. A major source is provided by the allowance for capital consumption. The

heavy investments during the previous years have increased depreciable assets. On an average life of eight years, depreciation charges could reach about 54 to 60 percent of the investment requirement. However, the Plan sets aside 40 percent of this allowance for the payments of amortization on prior year's acquisitions. Additional savings are available in the form of undivided profits and surpluses. These sizable savings are available for new investments and for expansion.

From the government sector, savings generated from the profits derived by the government financial institutions out of their loan operations could be rechannelled to the investment stream.

Household savings were estimated at about ₱2.8 billion in 1966. The amounts directed to investments in the mining and manufacturing sectors have not been adequately reflected in official statistics. However, the records of the Securities and Exchange Commission show that total paid-in capital of newly registered enterprises and increases in the capital of corporations and partnerships amounted to an annual rate of about ₱200 million during the past five years. Subsequent payments on subscriptions are not reported, giving these figures an under-reporting bias. Also, reinvestments of single proprietorships do not appear in the records. This gives rise to a problem regarding the exact amount of personal savings that goes into capital formation in mining and manufacturing. The program for mining and manufacturing relies on a 33 percent contribution from personal savings, including those which are channelled through informally organized and uninstitutionalized media, compared to a 45 percent ratio of total personal savings in the financing of the Gross Domestic Capital Formation in previous years.

A substantial amount of the savings from various sources are channelled through financial intermediaries in the form of various kinds of deposits (savings, time, demand), bonds purchases, life insurance premiums, pension funds payments, etc. Government financial institutions engaged in long-term lending provide only 8.94 percent of the required financing for capital asset acquisitions. Commercial banks, the PNB included, contribute another 20 percent. This estimate is based on the assumption that 10 percent of the total credits extended by commercial banks to mining and manufacturing financed capital formation. (See Tables IV-2-7 and IV-2-8)

(c) Financing Policy

Since the capacity of the government financial institutions to meet their estimated share of the total funding of the program is limited, there is a need to coordinate and direct the investment policies and operations of these financial institutions to priority areas which will generate maximum benefits for the economy. Close cooperation has to be maintained among the Board of Investments, the Central Bank, and the government financial institutions. An inter-agency committee could serve as a clear-

ing house by which possible areas of cooperation can be identified and subsequently discussed. This will involve a periodic analysis and review of the financial resources of government financial institutions.

In line with the program's objective of promoting efficiency and growth through the utilization of previously unused capacities, the lowest priority will be assigned to business ventures classified as overcrowded industries or industries with excess capacities. These industries will be denied the use of the lending guarantee and other foreign exchange facilities of the government financial institutions for the establishment of additional or new capacities, but not for the procurement of raw material, spare parts and/or for other working capital purposes. A general review of the list of overcrowded industries should be made annually within 30 days from the effectivity of the BOI's Investment Priorities Plan.

5. Investment Incentives

Incentives to industry have long been one of the main instruments by which the Philippine Government has attempted to direct the growth of manufacturing. In the formation of the BOI, the lessons learned from this experience in the application of incentives have been utilized.

The main activities of BOI are the formulation of an annual Investment Priorities Plan and the evaluation of applicants for registration as a preferred enterprise. The IPP is a listing of industrial activities eligible to receive incentives. These activities, called preferred, may be pioneer or non-pioneer. A pioneer activity can either be a process or a product which has not been used or produced commercially in the Philippines, although it may already be long established in other countries. Varying degrees of incentives are given, with the strongest incentives being available to pioneer activities for export.

The incentives available (under R.A. 5186) to preferred pioneer enterprises, irrespective of nationality, are the following:

(1) Deduction of organizational and pre-operating expenses;
(2) Accelerated depreciation;
(3) Net operating loss carry-over;
(4) Tax exemption on imported capital equipment;
(5) Tax credit on domestic capital equipment to user and manufacturer;
(6) Tax credit for withholding tax on interest;
(7) Employment of foreign nationals;
(8) Deduction for expansion of reinvestment;
(9) Anti-dumping protection;
(10) Protection from government competition;
(11) Exemption from all taxes under the Internal Revenue Code, ex-

cept income tax on a gradually diminishing percentage from the date of registration up to December 1981;

(12) Post-operative tariff protection; and

(13) For export-oriented industries: double deduction of promotional expenses; double deduction of shipping costs on Philippine vessels and/or 150% of shipping cost on foreign vessels; special tax credit on raw materials.

All the incentives mentioned above, except (11) and (12) are available to preferred Filipino non-pioneer enterprises.

Enterprises owned and controlled by American nationals which are engaged in non-pioneer areas, while entitled to non-tax benefits, cannot avail themselves of the tax incentives granted under R.A. 5186. Finally, foreigners other than Americans are temporarily prohibited from engaging beyond 40 percent equity participation in non-pioneer areas. However, all foreign enterprises which are already engaged in such activities may continue to do so.

Certain other incentives are granted to Filipino investors in preferred pioneer enterprises, namely:

(1) Protection of patents and other proprietary rights against infringement;

(2) Capital gains tax exemption;

(3) Tax allowance to the extent of actual investment but not exceeding 10 percent of taxable income;

(4) Tax exemption on sale of stock dividends received from a pioneer enterprise, provided the sale occurs within 7 years from the date of registration; and

(5) Salary loans to GSIS and SSS members for purchase of shares of stock in any registered enterprises.

Foreign investors in pioneer enterprises and Filipino investors in non-pioneer enterprises may avail of the incentives above except for (3) and (4).

6. Regional Industrialization

To achieve industrial dispersal, Congress created a number of development authorities. Only five of these authorities are fully operational: the Mindanao Development Authority, the Central Luzon-Cagayan Valley Development Authority, the Mountain Province Development Authority, the Bicol Development Authority and the Laguna Lake Development Authority. The others are merely paper organizations.

The achievements of these existing regional development authorities have fallen short of their objectives. They have not prepared adequate programs that can be synchronized with the overall economic development

objectives of the country. This is due not only to lack of coordination between them and the national planning agencies, but also to the overlapping in the functions of these authorities.

This obvious defect in the country's regional planning dictates the need for a revision of existing institutional arrangements.

7. Employment Generation

The objective of promoting the development of intermediate and capital goods industries which are usually capital-intensive seems to be inconsistent with the objective of creating maximum employment opportunities. However, an examination of the capital-labor ratios of the priority projects reveals that a sizeable number of priority projects have ratios lower than the average for all manufacturing industries. As shown below, the value of fixed capital assets per unit of labor employed in 45 of the 88 priority industries is lower than ₱20,000.

Capital-Labor Ratios of Priority Projects

Value of Fixed Capital Assets Per Unit of Labor Employed	No. of Projects
Over ₱90,000	33
₱35,000 — ₱50,000	10
₱20,000 — ₱35,000	20
₱ 5,000 — ₱20,000	27

In the formulation of subsequent IPPs of the BOI, special attention should be given to labor-intensive projects in order to attain the Plan goal of reducing the unemployment rate.

Table IV-2-1: **CONTRIBUTION TO NET DOMESTIC PRODUCT AND GROSS DOMESTIC CAPITAL FORMATION OF THE MINING AND MANUFACTURING SECTORS**

	FY 1970	FY 1971	FY 1972	FY 1973	FY 1974
A. CONSTANT 1967 PRICES					
Net Domestic Product (Mining & Manufacturing)	4,627	4,827	5,187	5,638	6,264
Mining	592	714	886	947	1,137
Manufacturing	4,035	4,113	4,301	4,691	5,127
Total GDCF	6,120	6,456	6,815	7,228	7,697
GDCF for MM	1,750	1,855	1,966	2,084	2,209
% Share MM/GDCF	28.6	28.7	28.8	28.8	28.7
Incremental Growth MM	193	200	360	451	626
ICOR (1 year lag)	9.19	8.75	5.15	4.35	3.32
Growth Rate — MM	4.3	4.3	7.45	8.69	11.11
Mining	42.99	20.61	24.08	6.88	20.
Manufacturing	.37	1.00	4.57	9.06	9.29
B. CURRENT PRICES (50% Devaluation Assumption)					
Net Domestic Product (Mining & Manufacturing)	5,348	6,043	6,681	7,470	8,531
Mining	1,085	1,414	1,837	2,076	2,670
Manufacturing	4,263	4,629	4,844	5,394	5,861
GDCF Total	7,338	8,838	9,493	10,235	11,099
GDCF (Mining & Manufacturing)	2,098	2,539	2,738	2,951	3,185
Incremental Growth (Mining & Manufacturing)	596	695	638	789	1,061
ICOR	3.09	3.02	3.97	3.47	2.78
Growth Rate	11.25	11.30	11.05	11.18	11.42

Table IV-2-2: TOTAL PROJECT COST OF PROJECTS APPROVED BY THE BOARD OF INVESTMENTS BY TYPE OF PRODUCT AND USES OF FUNDS: JULY 1, 1968 TO DECEMBER 31, 1969

(in thousand pesos)[1]

Type of Product	Grand Total	Fixed Capital Formation					Working Capital	Others
		Total	Construction	Durable Equipment				
				Total	Imported	Local		
GRAND TOTAL	**2,974,770**	**2,260,642**	**372,602**	**1,888,040**	**1,754,073**	**133,967**	**524,049**	**190,079**
AGRO-INDUSTRIES	858,535	696,115	114,926	581,189	512,749	68,440	104,015	58,405
Activated carbon	2,370	1,358	187	1,171	1,090	81	47	965
Livestock	1,530	703	330	373	373	—	790	37
Bananas	8,064	4,334	2,574	1,760	960	800	—	3,730
Rice	16,819	10,994	130	10,864	10,864	—	3,452	2,373
Marine products	138,108	130,435	26,906	103,529	68,637	34,892	4,960	2,713
Cassava starch	1,707	1,707	900	807	627	180	—	—
Coconut oil	30,001	22,085	2,980	19,105	17,243	1,862	6,041	1,875
Processed coconut products	21,113	14,132	5,320	8,812	5,172	3,640	2,286	4,695
Cornstarch	44,140	36,398	4,460	31,938	21,958	9,980	7,496	246
Fiber bags	6,677	—	—	—	—	—	6,677	—
Ramie (integrated)	18,950	18,934	1,050	17,884	17,884	—	16	—
Forest products (plywood, veneer, etc.)	154,853	134,907	16,044	118,863	102,083	16,780	16,938	3,008
Processed food	15,050	12,050	2,675	9,375	9,150	225	3,000	—
Pulp & paper	399,153	308,078	51,370	256,708	256,708	—	52,312	38,763
MINING & MINERAL PROCESSING INDUSTRIES	1,206,976	867,741	111,054	756,687	697,748	58,939	270,055	69,180
Aluminum smelting	127,920	77,610	18,720	58,890	44,850	14,040	11,727	38,583
Iron ore	8,883	3,579	—	3,579	3,579	—	—	5,304

Table IV-2-2 (Continued)

Type of Product	Grand Total	Fixed Capital Formation					Working Capital	Others
		Total	Cons. truction	Durable Equipment				
				Total	Imported	Local		
Nickel	342,877	185,858	15,192	170,666	141,115	29,551	155,823	1,196
Copper	89,307	83,459	750	82,709	68,174	14,535	1,956	3,892
Pyrite	7,845	7,845	2,847	4,998	4,998	—	—	—
Clay	1,742	1,232	403	829	829	—	510	—
Rock aggregates	25,448	21,604	2,042	19,562	18,934	628	939	2,905
Primary steel (integrated)	602,000	486,000	71,100	414,900	414,900	—	99,100	16,900
Dinnerware	954	554	—	554	369	185	—	400
MANUFACTURING INDUSTRIES OTHER THAN ABOVE	909,259	696,786	146,622	550,164	543,576	6,588	149,979	62,494
Ceramics	14,464	12,395	775	11,620	11,187	433	1,279	790
Industrial chemicals	120,106	79,723	5,356	74,367	70,101	4,266	21,198	19,185
Fine chemicals	16,731	10,141	1,340	8,801	8,801	—	2,564	4,026
Antibiotics	10,975	6,300	1,300	5,000	5,000	—	2,500	2,175
Synthetic bags	29,078	22,886	3,307	19,579	19,440	319	3,464	2,728
Communications equipment	1,440	400	—	400	400	—	—	1,040
Electrical equipment	13,857	8,044	3,924	4,120	3,840	280	4,122	1,691
Footwear	11,976	9,940	3,080	6,860	6,360	500	1,511	525
Glass products	51,590	41,544	12,599	28,945	28,224	721	3,709	6,337
Lubricating oil	119,382	99,615	—	99,615	99,615	—	15,348	4,419
Machinery & capital equipment	18,416	8,557	1,451	7,106	7,067	39	6,122	3,737
Cold rolled strips & coils	394,981	322,081	80,789	241,292	241,292	—	66,300	6,600
Metal products & engineering	66,263	48,660	6,201	42,459	42,249	210	8,362	9,241
Transport equipment	40,000	26,500	26,500	—	—	—	13,500	—

[1] Costs at pre-devaluation prices.

Table IV-2-3: INVESTMENT AND EMPLOYMENT GENERATED BY BOI-APPROVED PROJECTS BY REGION

(July 1, 1968 — December 31, 1969)

REGION	Number of Plants	Total Investment (in thousand pesos)[1]	Investment in Machinery & Equipment (in thousand pesos)[1]	Number of Persons Employed	Total Annual Payroll (in thousand pesos)
PHILIPPINES	161	2,974,770	1,888,040	28,902	80,304
REGION I: MANILA & SUBURBS	27	151,058	95,912	3,262	11,819
Makati	2	1,387	720	146	531
Mandaluyong	5	16,012	9,030	1,141	4,326
Manila	7	13,285	8,214	149	1,800
Navotas	7	104,422	71,916	1,573	4,383
Quezon City	5	12,929	4,059	180	298
San Juan	1	3,025	1,973	73	481
REGION II: ILOCOS	4	41,379	29,477	294	959
La Union	1	8,883	3,579	138	659
Mountain Province	3	32,496	25,898	156	300
REGION III: CAGAYAN VALLEY	3	24,381	21,070	798	1,616
Cagayan	2	15,324	13,681	471	910
Isabela	1	9,057	7,389	327	706
REGION IV: CENTRAL LUZON	16	216,391	127,810	2,421	9,774
Bataan	5	102,249	38,021	1,376	6,706
Bulacan	10	104,844	82,987	789	2,054
Zambales	1	9,298	6,802	256	1,014
REGION V: SOUTHERN LUZON	49	996,674	699,320	8,366	21,435
Batangas	1	410,700	303,200	557	1,352
Cavite	1	18,943	6,360	420	359
Laguna	3	121,969	100,907	900	3,656
Palawan	2	10,364	7,465	145	606

Table IV-2-3 (Continued)

REGION	Number of Plants	Total Investment (in thousand pesos)[1]	Investment in Machinery & Equipment (in thousand pesos)[1]	Number of Persons Employed	Total Annual Payroll (in thousand pesos)
Quezon	7	68,198	44,215	576	1,277
Rizal (excluding the suburbs of Manila)	35	366,500	237,175	5,768	14,185
REGION VI: BICOL	2	11,980	8,978	98	345
Camarines Norte	1	11,338	8,631	70	246
Masbate	1	642	347	28	99
REGION VII: WESTERN VISAYAS	5	60,030	58,602	376	995
Capiz	1	1,565	713	65	213
Negros Occidental	3	3,682	3,106	107	287
Negros Oriental	1	54,783	54,783	204	495
REGION VIII: EASTERN VISAYAS	7	37,574	31,855	596	1,901
Cebu	5	27,701	24,829	571	1,801
Samar	2	9,873	7,026	25	100
REGION IX: NORTHERN MINDANAO	25	1,310,596	736,339	6,080	18,304
Agusan	3	29,555	22,263	249	397
Bukidnon	2	7,112	4,600	329	1,649
Lanao del Norte	5	636,474	351,021	1,298	6,538
Lanao del Sur	2	1,707	807	884	631
Misamis Oriental	7	17,858	10,252	1,304	2,706
Surigao del Norte	1	333,579	163,864	1,200	5,000
Surigao del Sur	5	284,311	183,532	816	1,383
REGION X: SOUTHERN MINDANAO AND SULU	23	124,707	78,677	6,611	13,156
Cotabato	10	61,828	39,456	2,290	3,566
Davao	10	49,216	28,058	3,466	7,269
Zamboanga del Sur	2	1,331	1,331	290	721
Sulu	1	12,332	9,832	565	1,600

[1] Costs at pre-devaluation prices.

Table IV-2-4: THIRD INVESTMENT PRIORITIES PLAN OF THE BOI, DEMAND-SUPPLY GAP AND ANNUAL CAPACITY OF THE RECOMMENDED ECONOMIC SIZE PLANT
(in thousands)

Name of Product	Projection Demand	Demand Projection Year	Existing Capacity	Measured Capacity			Annual Capacity of the Recommended Economic Size Plant
				Total	Local	Export	
Pulp & paper	373 M.T.	1974	283 M.T.	90 M.T.	90 M.T.	—	30 M.T.
Long fiber pulp	100 M.T.	1974	—	100 M.T.	55 M.T.	45 M.T.	100 M.T.
Fiberboard	148 M.T.	1975	88 M.T.	60 M.T.	60 M.T.	—	30 M.T.
Ramie	14,200 yd.	1975	4,200 yd.	10,000 yd.	10,000 yd.	—	5,000 yd.
Wood chips	144 BDU.	1974	—	144 BDU.	—	144 BDU.	12 BDU.
Plywood	2,740 sq. ft.	1975	2,300,000 sq. ft.	440,000 sq. ft.	150,000 sq. ft.	290,000 sq. ft.	96,000 sq. ft.
Veneer (non-integrated)	1,320,000 sq. ft.	1974	1,040,000 sq. ft.	280,000 sq. ft.	—	280,000 sq. ft.	90,000 sq. ft.
Tree farming	1,700 cu.m.	1975	Negligible	1,700 cu. m.	1,700 cu. m.	—	350 cu.m.
Coated board	24, M.T.	1974	—	24,M.T.	24 M.T.	—	6.6 M.T.
Particle board	31 M.T.	1975	21 M.T.	10 M.T.	10 M.T.	—	7.5 M.T.
Palm oil	38 M.T.	1974	.8 M.T.	37.2M.T.	7.2 M.T.	30.0 M.T.	6 M.T.
Lumbang oil	10 M.T.	1974	2 M.T.	8 M.T.	2 M.T.	6 M.T.	8. M.T.
Activated carbon	2.8 M.T.	1975	.48 M.T.	Variable	2.32 M.T.	Variable	0.48 M.T.
Coconut oil	1,200 M.T.	1974	1,100 MT.	100 M.T.	—	100 M.T.	67.5 M.T.
Fruits & Vegetables	146 M.T.	1974	117 M.T.	28.7 M.T.	16.7 M.T.	12.0 M.T.	1 M.T.
Tomato paste	4 M.T.	1974	—	4 M.T.	4 M.T.	—	0.3 M.T.
Fish	68 M.T.	1974	Negligible	68 M.T.	68 M.T.	—	1.05 M.T.
Dairy products	810 M.T.	1974	10 M.T.	800 M.T.	800 M.T.	—	89 M.T.
Agar-agar	102 kg.	1974	Negligible	Variable	102 kg.	Variable	88 kg.
Rice bran oil	13 M.T.	1974	—	13 M.T.	—	13 M.T.	0.75 M.T.
Dextrose	450 M.T.	1974	—	450 M.T.	450 M.T.	—	.45 M.T.
Cattle	76 MTDW	1975	48 MTDW	28 MTDW	28 MTDW	—	.0885 MTDW
Fish (deep sea)	1,053 M.T.	1973	839 M.T.	214 M.T.	214 M.T.	—	1.2 M.T.
Fish (inland)	105 M.T.	1973	83 M.T.	22 M.T.	22 M.T.	—	0.875 M.T.
Hogs	595 M.T.	1973	482 M.T.	113 M.T.	113 M.T.	—	.64 M.T.

Table IV-2-4 (Continued)

Name of Product	Projection Demand	Demand Projection Year	Existing Capacity	Measured Capacity			Annual Capacity of the Recommended Economic Size Plant
				Total	Local	Export	
Poultry (a) meat	129 M.T.	1973	99 M.T.	30 M.T.	30 M.T.	—	.084 M.T.
(b) eggs	105 M.T.	1973	76 M.T.	29 M.T.	29 M.T.	—	.096 M.T.
(c) chicks	116.4 M.T.	1973	87.5 M.T.	28.9 M.T.	28.9 M.T.	—	.737 M.T.
Shrimps (a) deep sea	195 M.T.	1973	35 M.T.	160 M.T.	60 M.T.	100 M.T.	.3 M.T.
(b)							.15 M.T.
Processed grain	2,345 M.T.	1975	1,800 M.T.	543 M.T.	543 M.T.	—	10 M.T.
Rice	378.5 M.T. (for export)	1975	18.5 M.T. (for export)	360 M.T.		360 M.T.	13 M.T.
Corn	100 M.T.	1975	Negligible	100 M.T.	—	100 M.T.	5.6 M.T.
Soybeans	76 M.T.	1973	1 M.T.	75 M.T.	75 M.T.	—	)
Sorghum	170 M.T.	1973	46 M.T.	123.6 M.T.	123.6 M.T.	—	) 8 M.T.
Peanuts	22 M.T.	1974	12 M.T.	Variable	10 M.T.	Variable	2.4 M.T.
Iron ore	3,300 M.T.	1973	1,500 M.T.	1,800 M.T.	800 M.T.	1,000 M.T.	300 M.T.
Chromite ore	200 M.T.	1973	120 M.T.	80 M.T.	—	80 M.T.	80 M.T.
Copper ore	300 M.T.	1975	200 M.T.	100 M.T.	60 M.T.	40 M.T.	5 M.T.
Mercury	5.5 flasks	1973	3.5 flasks	2 flasks	—	2 flasks	2 flasks
Lead-zinc concentrate	300 M.T.	1973	—	300 M.T.	—	300 M.T.	300 M.T.
Primary steel	2,000 M.T.	1973	—	2,000 M.T.	2,000 M.T.	—	1,000 M.T.
Ferro-alloys	24 M.T. (local)	1973	2.3 M.T.	21.7 M.T.	21.7 M.T.	—	6 M.T.
	40 M.T. ferro-silicon	1973	—	40 M.T. ferro-silicon	—	40 M.T. ferro-silicon	
	20 M.T. ferro-chrome	1973	—	20 M.T. ferro-chrome	—	20 M.T. ferro-chrome	
Copper metal	60 M.T.	1973	—	60 M.T.	10 M.T.	50 M.T.	60 M.T.
Nickel metal & alloys	51 M.T.	1973	—	51 M.T.	1 M.T.	50 M.T.	24 M.T.
Coal	200 M.T.	1973	—	200 M.T.	220 M.T.	—	200 M.T.

Table IV-2-4 (Continued)

Name of Product	Projection Demand	Demand Projection Year	Existing Capacity	Measured Capacity			Annual Capacity of the Recommended Economic Size Plant
				Total	Local	Export	
Natural gas	Variable	1973	—	Variable	Variable	—	13,000 KWH
Sulfur	150 M.T.	1973	—	150 M.T.	—	150 M.T.	150 M.T.
Asbestos	3.3 M.T.	1973	1.5 M.T.	1.8 M.T.	1.8 M.T.	—	1.8 M.T.
Rock asphalt	83 M.T.	1973	—	83 M.T.	83 M.T.	—	26 M.T.
Perlite	8.2 M.T.	1973	—	8.2 M.T.	8.2 M.T.	—	8.2 M.T.
Metallurgical coke	350 M.T.	1973	—	350 M.T.	350 M.T.	—	350 M.T.
Dinnerware	7 M.T.	1973	1.8 M.T.	5.2 M.T.	5.2 M.T.	—	1.8 M.T.
Clay	34 M.T.	1973	—	34 M.T.	34 M.T.	—	10 M.T.
Refractories	59.2 M.T.	1973	20 M.T.	39.2 M.T.	39.2 M.T.	—	15 M.T.
Polystyrene resins	10.8 M.T.	1973	—	10.8 M.T.	10.8 M.T.	—	10.8 M.T.
Polyvinyl alcohol resins	2.6 M.T.	1975	—	2.6 M.T.	2.6 M.T.	—	1 M.T.
Polyvinyl chloride resins	47 M.T.	1975	10 M.T.	37 M.T.	37 M.T.	—	16 M.T.
Nylon fibers	10.6 M.T.	1973	2.7 M.T.	7.9 M.T.	7.9 M.T.	—	3.96 M.T.
Rayon fibers	25 M.T.	1975	—	25 M.T.	25 M.T.	—	18 M.T.
Polyacrylic sheets	0.91 M.T.	1975	0.42 M.T.	0.49 M.T.	0.49 M.T.	—	0.12 M.T.
Benzene hexachloride (6%)	8.6 M.T.	1973		8.6 M.T.	8.6 M.T.	—	6.6 M.T.
Antibiotics	144 kg.	1973	60 kg.	54 kg.	54 kg.	—	21 kg.
Edible salt	330 M.T.	1972	225 M.T.	105 M.T.	105 M.T.	—	100 M.T.
Special & alloy steel	9.1 M.T.	1974	—	9.1 M.T.	9.1 M.T.	—	10.5 M.T.
High-carbon steel wire	14.9 M.T.	1974	—	14.9 M.T.	14.9 M.T.	—	6 M.T.
Copper tubes	1.6 M.T.	1974	—	1.6 M.T.	1.6 M.T.	—	1.5 M.T.
Pliers & wrenches	6,900	1974	2,400	4,500	4,500	—	522
Shapers	2.2	1974	—	2.2	2.2	—	0.4
Electric drills	16	1974	—	16	16	—	12
Electric grinders	7.9	1974	—	7.9	7.9	—	8

Table IV-2-4 (Continued)

Name of Product	Projection Demand	Demand Projection Year	Existing Capacity	Measured Capacity			Annual Capacity of the Recommended Economic Size Plant
				Total	Local	Export	
Lathes	8.9	1974	—	8.9	8.9	—	0.3
Drill presses	5.8	1974	—	5.8	5.8	—	1
Fishing winches	1.1	1974	—	1.1	1.1	—	0.12
Band saws	3.18	1974	0.18	3	3	—	0.12
Carbide-tipped tools	1.945	1974	45	1.900	1.900	—	82.3
Platform scales	4.9	1974	1	3.9	3.9	—	1
Pumps	33.8	1974	13.2	20.6	20.6	—	1.5
Palay threshers	7.6	1974	0.03	7.6	7.6	—	0.2
Steam boilers	1.2	1974	—	1.2	1.2	—	0.06
Diesel engines	4.8	1974	—	4.8	4.8	—	2
High-HB Diesel engines	5.3	1974	—	5.3	5.3	—	0.1
Porcelain insulators	320 kg.	1973	—	320 kg.	320 kg.	—	300 kg.
Electric motors	108	1973	21	87	87	—	20
Kilowatt-hour motors	109.1	1973	—	109.1	109.1	—	15
Electric controls	800	1973	—	800	800	—	6
Power transformers	81.5 KVA	1975	—	81.5 KVA	81.5 KVA	—	50 KVA
Barges & tugboats	302.5 G.T.	1973	7.5 G.T.	295 G.T.	295 G.T.	—)	3 G.T.
Fishing boats	82.5 G.T.	1973	—	82.5 G.T.	82.5 G.T.	—)	
Interisland ships	358 G.T.	1973	—	358 G.T.	358 G.T.	—	5 G.T.
Ocean-going ships	800 G.T.	1973	—	800 G.T.	800 G.T.		10 G.T.
Footwear	3,000 pairs	1974	1,300 pairs	1,700 pairs	—	1,700 pairs	300 pairs

Table IV-2-5: THIRD INVESTMENT PRIORITIES PLAN OF THE BOI, INVESTMENT REQUIREMENT AND VALUE OF OUTPUT FOR RECOMMENDED-SIZE PLANT
(in thousand pesos)[1]

Name of Product	Investment Requirement			Value of Output
	Total	Capital Requirement	Others	
Pulp & paper	108,000	69,000	39,000	39,000
Long fiber pulp	200,000	120,000	80,000	57,686
Fiberboard	40,000	23,100	16,900	15,300
Ramie	20,473	18,521	1,952	32,262
Wood chips	1,200	684	516	706
Plywood	10,000	7,200	2,800	15,642
Veneer	6,400	3,500	2,900	7,408
Tree farming	2,500	1,854	646	2,200
Coated board	10,677	9,327	1,350	9,240
Particle board	3,000	2,545	455	4,251
Palm oil	3,002	2,258	744	4,587
Lumbang oil	6,311	4,199	2,112	10,521
Activated carbon	2,618	1,362	1,256	1,363
Coconut oil	18,625	12,120	6,505	50,623
Fruits & vegetables	4,623	3,600	1,023	2,036
Tomato paste	423	253	170	384
Fish	960	286	674	2,499
Dairy products	1,198	631	567	2,151
Agar-agar	2,100	1,300	800	1,844
Rice bran oil	4,844	3,055	1,789	4,488

Table IV-2-5 (Continued)

Name of Product	Investment Requirement			Value of Output
	Total	Capital Requirement	Others	
Dextrose	1,696	796	900	616
Cattle	2,081	115	1,966	366
Fish (deep sea)	1,212	962	250	1,360
Fish (inland)	1,785	950	835	1,444
Hogs	1,493	83	1,410	1,600
Poultry (a) meat	89	15	74	246
(b) eggs	134	12	122	302
(c) chicks	437	92	345	542
Shrimps (a) deep sea	3,065	1,934	1,131	1,747
(b) inland	1,150	590	560	940
Processed grain	5,063	2,683	2,380	11,861
Rice	13,900	7,481	6,419	11,050
Corn	2,903	455	2,448	1,098
Soybeans)				
Sorghum)	2,903	455	2,448	2,460
Peanuts	3,076	455	2,621	1,882
Iron ore	6,000	1,812	4,188	9,996
Chromite ore	10,800	10,000	800	6,272
Copper ore	14,850	8,150	6,700	17,248
Mercury	1,200	918	282	3,998
Lead-zinc concentrate	7,323	6,323	1,000	8,691
Primary steel	783,000	384,000	399,000	363,190
Ferro-alloys	6,300	6,020	280	4,800
Copper metal	126,800	123,363	3,437	30,000
Nickel metal & alloys	363,320	227,150	136,170	179,326

Table IV-2-5 (Continued)

Name of Product	Investment Requirement			Value of Output
	Total	Capital Requirement	Others	
Coal	3,674	3,274	400	5,575
Natural gas	8,000	6,000	2,000	2,600
Sulfur	60,000	56,000	4,000	23,520
Asbestos	750	664	86	1,532
Rock asphalt	600	380	220	598
Perlite	1,745	1,040	705	4,200
Metallurgical coke	77,100	71,400	5,700	59,500
Dinnerware	2,418	2,051	367	4,374
Clay	937	682	255	1,900
Refractories	11,153	8,786	2,367	9,678
Polystyrene resins	19,562	9,730	9,832	19,065
Polyvinyl alcohol resins	3,250	2,000	1,250	5,000
Polyvinyl chloride resins	20,000	15,000	5,000	22,400
Nylon fibers	51,352	30,288	21,064	33,660
Rayon fibers	197,729	111,581	86,148	56,250
Polyacrylic sheets	1,000	470	530	744
Benzene hexachloride (6%)	6,604	5,066	1,538	6,189
Antibiotics	5,595	3,895	1,700	3,320
Edible salt	6,623	5,039	1,584	5,000
Special & alloy steel	997	432	565	1,800
High-carbon steel wire	3,425	1,913	1,512	6,450
Copper tubes	3,880	2,112	1,768	12,000
Pliers & wrenches	1,163	534	629	1,287
Shapers	2,779	1,412	1,367	2,600
Electric drills	1,163	585	578	1,680

Table IV-2-5 (Continued)

Name of Product	Investment Requirement			Value of Output
	Total	Capital Requirement	Others	
Electric grinders	1,085	585	500	2,358
Lathes	3,987	2,125	1,842	3,600
Drill presses	1,459	559	900	1,200
Fishing winches	1,012	252	760	3,000
Band saws	2,114	1,003	1,111	2,400
Carbide-tipped tools	915	383	530	1,608
Flatform scales	742	270	472	550
Pumps	601	136	465	690
Palay threshers	635	63	572	660
Steam boilers	1,945	414	1,531	3,900
Diesel engines	3,043	1,227	1,816	5,400
High-HP diesel engines	6,225	4,140	2,085	3,500
Porcelain insulators	4,995	3,795	1,200	2,250
Electric Motors	7,700	5,100	2,600	3,000
Kilowatt-hour meters	400	115	285	1,125
Electric controls	780	340	440	1,500
Power transformers	2,390	2,040	350	1,525
Barges & tugboats)				
Fishing boats)	5,300	3,000	2,300	7,500
Interisland ships	14,000	6,896	7,104	22,250
Ocean-going ships	24,000	18,000	6,000	40,000
Footwear	6,970	1,222	5,748	10,082
TOTAL	**2,418,411**	**1,461,608**	**928,044**	**1,334,216**

[1] Costs at pre-devaluation prices.

Table IV-2-6: THIRD INVESTMENT PRIORITIES PLAN OF THE BOI LABOR REQUIREMENTS BY LEVEL OF SKILL FOR RECOMMENDED-SIZE PLANT

(In Numbers)

Name of Product	Total	Supervisory & Skilled	Semi-Skilled	Unskilled
Pulp and paper	570	225	125	220
Long fiber pulp	1,200	360	270	600
Fiberboard	103	20	64	19
Ramie	720	40	617	63
Wood chips	47	25	4	18
Plywood	400	285	55	60
Veneer	229	141	42	46
Tree farming	94	54	19	21
Coated board	122	26	66	30
Particle board	40	23	5	12
Palm oil	76	24	24	28
Lumbang oil	76	24	24	28
Activated carbon	13	3	10	—
Coconut oil	57	9	14	34
Fruits and vegetables	46	14	—	32
Tomato paste	10	3	3	4
Fish	26	5	6	15
Dairy products	19	5	8	6
Agar-agar	14	3	3	8
Rice bran oil	33	9	18	6
Dextrose	10	5	5	—

Table IV-2-6 (Continued)

Name of Product	Total	Supervisory & Skilled	Semi-Skilled	Unskilled
Cattle	8	3	—	5
Fish (deep sea)	57	14	15	28
Fish (inland)	36	3	3	30
Hogs	11	2	3	6
Poultry: (a) meat	7	1	—	6
(b) eggs	9	1	—	8
(c) chicks	13	3	2	8
Shrimpc (a) deep sea	58	17	6	35
(b) inland	26	3	3	20
Processed grain	66	20	33	13
Rice	186	5	31	150
Corn	109	4	35	70
Soybeans) Sorghum)	112	4	35	73
Peanuts	112	4	35	73
Iron ore	500	75	175	250
Chromite ore	347	47	100	200
Copper ore	150	50	100	—
Mercury	100	21	30	49
Lead-zinc concentrate	210	40	60	110
Primary steel	2,200	1,000	1,000	—
Ferro-alloys	119	93	22	4
Copper metal	488	200	288	—
Nickel metal and alloys	1,200	475	410	315
Coal	405	30	75	300

Table IV-2-6 (Continued)

Name of Product	Total	Supervisory & Skilled	Semi-Skilled	Unskilled
Natural gas	200	50	150	—
Sulfur	500	150	200	150
Asbestos	65	24	11	30
Rock asphalt	60	20	40	—
Perlite	71	57	14	—
Metallurgical coke	219	159	60	—
Dinnerware	67	9	42	16
Clay	30	20	10	—
Refractories	111	86	25	—
Polystyrene resins	138	99	24	15
Polyvinyl alcohol resins	42	15	9	18
Polyvinyl chloride resins	129	9	90	30
Nylon fibers	146	54	72	20
Rayon fibers	994	440	320	234
Polyacrylic sheets	14	6	6	2
Benzene hexachloride (6%)	70	22	32	16
Antibiotics	81	34	32	15
Edible salt	72	10	—	62
Special and alloy steel	63	30	24	9
High-carbon steel wire	41	34	5	2
Copper tubes	37	22	6	9
Pliers and wrenches	38	12	12	14
Shapers	63	31	22	10

Table IV-2-6 (Continued)

Name of Product	Total	Supervisory & Skilled	Semi-Skilled	Unskilled
Electric drills	50	28	11	11
Electric grinders	32	22	5	5
Lathes	130	72	28	30
Drill presses	51	31	10	10
Fishing winches	39	14	19	6
Band saws	94	60	18	16
Carbide-tipped tools	32	14	10	8
Platform scales	18	7	6	5
Pumps	37	17	10	10
Palay threshers	38	13	15	10
Steam boilers	51	26	15	10
Diesel engines	69	44	15	10
High-HP diesel engines	147	82	30	35
Porcelain insulators	70	10	40	20
Electric motors	250	50	150	50
Kilowatt-hour meters	25	12	8	5
Electrical controls	35	14	12	9
Power transformers	10	4	4	2
Barges and tugboats) Fishing boats)	250	50	100	100
Interisland ships	1,550	350	600	600
Ocean-going ships	2,150	350	600	1,200
Footwear	300	25	145	130
TOTAL	**18,913**	**6,716**	**6,900**	**5,937**

Table IV-2-7: SOURCES OF FINANCING FOR THE INDUSTRIAL PROGRAM
FY 1970 — FY 1974
(In Million Pesos at Current Prices)

	FY 1970	FY 1971	FY 1972	FY 1973	FY 1974	Four-Year Totals	% Share
INVESTMENT REQUIREMENT Of Mining and Manufacturing Sectors for FIXED CAPITAL	2,098	2,539	2,738	2,951	3,185	11,413	100.00
SOURCES OF FINANCING							
PERSONAL SAVINGS	554	815	870.5	993.5	1,074.5	3,753.5	32.89
Paid-up capital of newly registered enterprises	110	120	130	140	150	540	
Increases in capital of existing corporations and partnerships	100	100	110	110	120	440	
Uninstitutionalized savings	334	595	630.5	743.5	804.5	2,773.5	
CORPORATE SAVINGS	263	319	344	370	400	1,433	12.56
Undivided profits & surpluses	263	319	344	370	400	1,433	
FINANCIAL INTERMEDIARIES							
Government Financial Institutions	155	205	255	255	305	1,020	8.94
DBP	150	200	250	250	300	1,000	
Others	5	5	5	5	5	20	

Table IV-2-7 (Continued)

	FY 1970	FY 1971	FY 1972	FY 1973	FY 1974	Four-Year Totals	% Share
Non-Government Financial Institutions	56	64	72.5	80.5	88.5	3,055	2.68
Private Development Banks	15	17	19	21	23	80	
Rural Banks	13	14	15	16	17	62	
Savings Bank	3	3	3.5	3.5	3.5	13.5	
Non-Bank Financial Institutions	25	30	35	40	45	150	
Commercial Banks	422	482	536	592	651	2,261	19.81
FOREIGN INVESTMENTS	648	654	660	660	666	2,640	23.13
Direct	48	54	60	60	66	240	
Indirect	600	600	600	600	600	2,400	
WORKING CAPITAL REQUIREMENT	524	634	684	737	736	2,851	100.00
SOURCES OF FINANCING							
Commercial Banks	368	372	480	420	444	1,716	60.19
Trade Creditors	156	262	204	317.	352	1,135	39.81

Table IV-2-8: FIXED CAPITAL FORMATION AND SAVINGS RECONCILIATION

FY 1970 — FY 1974

(in million pesos)

	FY 1970	FY 1971	FY 1972	FY 1973	FY 1974	Four-Year Totals	% Share
GROSS DOMESTIC CAPITAL FORMATION							
Mining and Manufacturing	2,098	2,539	2,738	2,951	3,185	11,413	100
GROSS SAVINGS	1,450	1,885	2,078	2,291	2,519	8,773	76.87
Personal Savings	396	609	699	804	911	3,023	26.49
Corporate Savings	263	319	344	370	400	1,433	12.56
Government Savings	25	30	35	40	45	150	1.31
Capital Consumption Allowance	766	927	1,000	1,077	1,163	4,167	36.51
FOREIGN SOURCES	648	654	660	660	666	2,640	23.13
Direct Investments	48	54	60	60	66	240	2.10
Gross Borrowings	600	600	600	600	600	2,400	21.03

Section IV — Chapter 3

TRANSPORTATION

1. Status of Philippine Transport System

Despite the tremendous pace of accomplishment which characterized the transport program during the past few years, the transport facilities of the country are still inadequate and inefficient. In Luzon, the commercial capital of Manila is not yet completely connected with the northern and southern parts of the island. In Mindanao, land transport is generally not developed and existing roads are in poor condition. The rehabilitation of the ground facilities and rolling stock of the Philippine National Railways can no longer be postponed, otherwise suspension and eventual shutdown of its services will occur. Most of the country's ports and harbors are short of berthing and storage space and require extensive dredging. The improvement of existing airports has not kept pace with the growth and development of air traffic and aircraft development.

As of June 30, 1969 the country had some 63,595 kilometers of roads of which 18,097 kilometers comprise the national highway system. The composition of the highway kilometrage, according to type of pavement, is as follows:

	(In Kilometers)
Earth	14,543
Macadam	36,678
Low-type asphalt	6,675
High-type asphalt	3,104
Cement concrete	2,528
Miscellaneous	67
Total	63,595

The Philippine National Railways (PNR) has 1,028 kilometers of single-line tracks of the narrow-gauge type. Its principal income is derived from the operation of its main line which covers 640 kilometers extending from San Fernando, La Union in the north to Legaspi City in the south. The PNR has 109 kilometers of tracks still closed to traffic due to destruction in World War II. Recently opened was a 91-kilometer spur line to Cabanatuan which carries only passenger traffic.

There are 473 ports throughout the country. Of these, 81 are national ports and 392, municipal ports. The distribution of these ports is defective. For instance, there are only a few ports on the country's Pacific coast.

Of the 120 existing airports, about 74 are operational. These are serviced by three privately-owned domestic air carriers. The airports receiving scheduled services at present are divided into four classes:

(1) One international airport in Manila.

(2) Seven trunkline airports, located in Laoag, Zamboanga, Davao, Cagayan de Oro, Cebu-Mactan, Bacolod, and Iloilo, which can accommodate medium range jets. Cebu-Mactan is used as an alternative international airport.

(3) Forty-one secondary airports which can service turbo-prop jets.

(4) Twenty-four feeder airports which can accommodate piston aircraft.

2. Philippine Transport Survey

Recognizing the deficiencies of the country's transport system, the Philippine Government requested in 1968 the United Nations Development Programme (UNDP) to finance an exhaustive transport survey of the Philippines. The ultimate goal was to formulate an investment program that will allow the optimum use of domestic resources for transport development. The World Bank (as the administering agency for UNDP) commissioned a French-Italian consulting firm to carry out the survey. Completed in 1969, the survey marks a significant change in Philippine transport planning.

This comprehensive transport study rationalizes the choice of investments in the transport sector. Constituting the basic framework of the survey's investment program were: (1) economic analyses, which determine the future development of transport needs and potential demand; (2) technical analyses, undertaken to determine, for each mode of transport, the operating conditions, future standards and corresponding costs of improvements; (3) benefit/cost ratio calculations. As a general rule, project ranking was based on traffic development and transport investments and costs. However, an improvement of the transport network may modify the traffic pattern either because traffic is diverted to a cheaper route or new traffic is induced. These feedback effects are taken into account. The survey employed an iterative process whereby improvements were first considered on the basis of traffic forecasts for each mode and route. The improvements for implementation were then ranked with the aid of benefit-cost computations. Any changes in the traffic pattern caused by the improvements led to a repetition of the process until traffic flows reached equilibrium. This approach permitted an evaluation of the interdependence of land and water-borne transportation, particularly the relationship between the Pan-Philippine Highway, railroad and shipping.

The survey came up with a 10-year investment program. The program embraces the primary network which interlinks the principal areas of

population and economic activity with each other and with the rest of the world. Composing this network are 10,000 kilometers of trunk roads, 37 national ports, 740 kilometers of railroads, and 37 trunkline and secondary airports.

The four-year transport program of this Plan was based on the recommendations of the said Transport Survey. Projects with the highest rates of returns were selected for implementation. The program is directed towards the establishment of a harmonized and integrated transport system where different transport facilitites will be complementary instead of in competition with each other.

3. Highways

The four-year highway program is meant to accelerate the pace of the previous years' highway construction. Its aim is to provide a structurally safe and adequate system of major thoroughfares, supplemented by integral networks of secondary and feeder roads. It calls for a total investment of ₱1.8 billion, in constant 1967 prices, over the next four years or an annual average of ₱442 million. This represents a 60 percent increase over the investment requirements of the previous four-year plan. A major reason for this higher investment level is the increased emphasis laid on the permanent improvement of the primary networks of interregional lines. This improvement would meet the future traffic needs arising from the national economic targets of achieving self-sufficiency in the basic nutritional products and necessary local processing of raw materials derived from agriculture, forestry and mining. At the same time, the improvement of the network, together with the construction and improvement of an extensive system of secondary and developmental roads, aims at partially inducing regional development along desired directions, particularly where rich resources remain untapped.

The four-year investment is expected to result in the strengthening, with the use of bituminous or cement concrete pavement, of 3,500 kilometers of primary roads, the improvement of 2,200 kilometers of secondary roads, and the construction of 4,400 kilometers of new roads. Some 18,000 lineal meters of permanent bridges will also be built during the program period.

In contrast to previous investment plans, the proposed program is based on the results of an exhaustive study of the country's transport sector as embodied in the Philippine Transport Survey Report. Out of the country's highway system of about 63,595 kilometers, the study has identified 10,000 kilometers which will comprise the primary network of interregional links. Supporting this basic network are the following: shorter links connecting the network to ports and centers of population and economic activity; a number of "shortcuts" that serve as alternative routes to existing ones; and new links that will increase the economic

development of regions which are insufficiently serviced at present. From this primary network were derived most of the major projects constituting the core of the four-year highway program, as shown in Table IV-3-1.

The selection and timing of the projects generally follow the basic studies of the transport survey. However, many of the projects in FY 1971 are ongoing projects, the continuation and completion of which are covered by contractual obligations of the Government. Special focus is given to the completion of the major sections of the Pan-Philippine Highway. However, the entire network will not be completed during the Plan period. Improvements will cover sections in Aparri, Cagayan and Davao City which form a major part of the network. This phase was started in FY 1970 and is covered by an existing Japanese commodity loan amounting to US$30 million..

In FY 1972, projects for implementation include the upgrading of the following high-priority sections of the Pan-Philippine Highway with low sufficiency ratings: the Cabanatuan-Tuguegarao Section (Cagayan Valley Road), Lucena-Legaspi Section (Manila South Road) and Digos-Cotabato Road. These roads have a combined net length of 533 kilometers. The highways around Metropolitan Manila will also be improved, in addition to the major transportation corridors and regional networks in Luzon carrying heavy traffic flows.

In FY 1973, the following major networks will be undertaken: the Rosario-Baguio-Bauang Road in Northern Luzon; the Pampanga-Bataan-Zambales Road and the Bugallon-Dagupan-Damortis Road in Midwestern Luzon; the Manila East Road in the Laguna Bay region; and the Sto. Tomas-Tagaytay-Bacoor-Las Piñas loop road in the southwestern Luzon region.

In FY 1974, the extensions of these networks will be improved. In addition, the major trunk roads connecting the urban centers and/or traversing through rich agricultural lands in Mindanao, Cebu, Panay and Negros Islands are scheduled for improvement.

External financing for these major projects will be sought from the World Bank and the Asian Development Bank. For the first group of projects (Cagayan Valley Road, Manila South Road, and Digos-Cotabato Road) proposed for World Bank financing, final engineering is currently being prepared by an Italian consulting firm. It is proposed that funds be included in the first highway loan for financing the costs of feasibility studies and the final engineering work involving the second group of projects. Similar arrangements will be proposed to the ADB.

4. Railways

The sole objective of the four-year railway program is to rehabilitate and modernize the PNR's existing rail facilities and its motive and rolling

stock. No expansion of the railway network is envisaged during the Plan period.

Rehabilitation and modernization work during the program period will be undertaken under the following major project categories:

(1) Rehabilitation and acquisition of rolling stock which includes the repair, rehabilitation and acquisition of locomotives, motor cars, passenger and freight cars, and spare parts;
(2) Improvement of work shops and line sheds for more efficient equipment maintenance and repair work;
(3) Rehabilitation and improvement of tracks and structures;
(4) Maintenance of railways and equipment; and
(5) Improvement of signal and electric communications equipment.

The programmed amounts are shown in Table IV-3-2.

5. Airports and Air Navigation

The program focuses on the rehabilitation and expansion of existing trunkline and secondary airports for the following purposes: to attain the necessary capacity in the face of rapid increase in air traffic; and to attain the required operational safety demanded by the fast modernization of aircrafts. There is no need during the Plan period to construct airports in new locations. This view is consistent with the findings of the Philippine Transport Survey which observes that the existing airports are sufficient, in number and location, to meet present and foreseeable traffic within the next decade. From the stand point of civil engineering, however, a large number of these airports are deficient and thus present great risks in the landing and take-off of aircrafts.

Since it is not feasible, due to fiscal constraints, to initiate improvements on all deficient airports during the Plan period, 4 trunkline and 32 secondary airports were chosen for development on the basis of the following factors:

(1) The present and projected volume of passenger and commodity traffic and other economic data on the airport's hinterland.
(2) The existence of alternative means of surface transport.
(3) The need for efficient and rapid transport service to islands which are distant from the main urban centers of their respective provinces.

To implement the four-year program, a total investment of ₱81.7 million is required. Of this amount, ₱71.5 million is earmarked for the rehabilitation of 27 airports, ₱6 million for the expansion of 3 airports, and ₱1.2 million for the construction of 2 concrete terminal buildings. These amounts are in current prices (see Table IV-3-3). Only 18 of the 27 airports to be rehabilitated, however, will be completed during the Plan period.

Among the projects programmed is the improvement of the Manila airport system. To cope with the arrival of the jumbo jet in 1970, the strengthening of the present main runway was started in FY 1970. The project is expected to be completed in FY 1971. However, to avoid congestion of the runways, the construction of a new finger pier and the enlargement of the apron are proposed. To meet the future growth of traffic, a new passenger and freight terminal for domestic airlines will be built, and a second runway parallel to the existing one will be needed. It is expected that these improvements will adequately handle the following changes in traffic:

	1968	1980
	(in thousands)	
(1) Commercial (in Tons)	46	106
(2) General Aviation (in Tons)	100	390
(3) Passenger (Persons)	1,346	4,850

The rehabilitation of two trunklines (Davao and Mactan) and 24 secondary airports involves basically the paving of runways, taxiways, and landing strips to provide safety in aircraft movements. This represents the first phase of a long-range development plan. The ensuing phases, which involve fencing and installation of aerodrome lights as well as construction of terminal buildings, will be undertaken in subsequent plans, i.e., after FY 1974. Among the secondary airports to be rehabilitated are those in Cotabato, Baguio, Corregidor, Mt. Samat, and Tabuk-Kalinga-Apayao, which are geared to service tourist traffic in line with the government's emphasis on tourism.

Together with the airports program is a plan for the improvement of air navigation facilities to provide safety in aircraft operations. The expenditures programmed during the Plan period will meet the needs of civil aviation in the next 10 years. To be completed will be the CAA-Philipps and Wilcox Co. contract for the installation of air navigation equipment in 5 major airports (Manila, Laoag, Zamboanga, Davao and Cebu) and in 37 connecting secondary aerodromes. About 80 percent of the contract price has been financed by two US commercial banks on a 3 1/2 years deferred payment arrangement. In the CAA-MARCONI contract, the installation of radar terminal in Manila, Mactan, Cagayan de Oro/Zamboanga/Jolo, Cagayan de Oro/Davao is proposed. The slow control which is already a handicap to current operations cannot be expected to cope with the increase in traffic flow.

6. Portworks

The four-year program stresses the structural improvement and expansion of selected national ports through the provision of adequate berthing and storage facilities as well as dredging works. It is aimed at raising

the port facilities to sufficient operating standards capable of handling the increase in shipping traffic and of meeting the requirements of regional development. In terms of physical outputs, the program represents a marked improvement over previous plans in the pattern of construction and upgrading works. This is primarily because the program is based upon a more rational and comprehensive planning framework as provided by the Philippine Transport Survey Report. In fact, the core of the program is composed of 24 out of the 27 ports that were pinpointed by the survey as high-priority projects. Investments were selected and phased in the program on the basis of the economic benefit-cost analysis made on the projects and on considerations of the adequacy of existing port facilities in relation to the volume of ship calls and cargoes handled. (See Table IV-3-4.)

Port of Manila

About one-third of the total peso investments of the program is earmarked for the improvement of the Manila port system which is forecast to remain as the principal trans-shipment point of the country. At present, Manila handles 85 percent of the country's imports and 15 percent of its exports. To meet the future overseas traffic needs, the strengthening of the marginal wharf and the completion of the breakwater of the international port are proposed. In the North Harbor, Pier 16 needs improvement. With the completion of the domestic port, it is expected that the traffic needs over the next several years will be sufficiently met.

Other National Ports

Since the Port of Manila requires the support of an adequate network of regional ports to achieve efficient handling of shipping traffic, the Plan also includes the development of several secondary ports. Among these are 6 ports recommended in the Transport Survey Report for priority implementation in the early phases of the program on account of their low engineering sufficiency in relation to the heavy traffic demands, not to mention the vital role of these ports in inducing the economic development of their regions of influence.

In Luzon, an overseas berth is proposed in the Port of Batangas in conjunction with the planned industrial growth of the area which is favored by its proximity to Manila and its good site. Tabaco in the Bicol area is proposed to have an additional overseas berth to complement the locally-oriented Port of Legaspi.

In Mindanao, development works will center on the ports at the four main urban and regional centers of the island: Cagayan de Oro in the north will have an additional berth to cope with the increased traffic; an overseas berth is planned in Davao (Sasa); a new maritime port will be constructed in Cotabato City; and additional storage facilities will be

provided in the General Santos Port in the south. Studies show that traffic growth is faster in Mindanao than in Luzon and Visayas in view of the increasing population and agro-industrial development in that region.

A $2.1 million loan from Germany is proposed to finance part of the costs in the improvement of the ports of Davao, Iligan and Batangas as well as the Manila marginal wharf.

Fisherman's Wharf

A boost to the local fishing industry will be the completion of the Navotas Fisherman's Wharf. The Asian Development Bank has been requested to finance part of the investment requirements of this project. When completed, this Port will have 8,595 square meters of wharf, 75 hectares of reclaimed land, and 600 square meters of fish market area.

On the whole, the four-year program is expected to provide 20 additional foreign berths capable of accommodating 2,000 additional ship calls a year and 40 domestic berths which can service 5,000 additional ship calls a year. Some 28,500 square meters of warehouses and transit and passenger sheds will be built and 30 hectares of port area will be reclaimed.

Table IV-3-1: **FOUR-YEAR HIGHWAY PROGRAM: FY 1970-1971 TO FY 1973-1974**

ANNUAL INVESTMENT REQUIREMENTS AND PHYSICAL GOALS

(Costs in Thousands at Current Prices)

Project Category: HIGHWAYS (SUMMARY)

		a) Quantity to be Completed		b) Peso Costs	c) Foreign Exchange Costs	
		FY 1970-1971	FY 1971-1972	FY 1972-1973	FY 1973-1974	Total 4 Years
1. Perm Supr., Kms.	a.	325.739	707.406	1,573.272	1,603.028	4,209.445
2. Semi-Perm., Kms.		89.42	452.30	443.58	445.09	1,430.39
3. New Const., Kms.		519.00	1,368.00	1,346.00	1,241.00	4,374.00
4. Bridges, L.M.		4,840.00	7,527.36	3,075.45	2,140.00	15,370.00
5. Others, Kms.		1,840.00	2,100.00	1,790.00	1,800.00	7,530.00
6. Special Project		—	—	860.00 LM	2,162.00	3,022.0
	b.	₱ 235,600	₱ 322,810	₱ 412,760	₱ 580,140	₱ 1,551,310
	c.	$ 22,900	$ 19,428	$ 50,272	$ 74,885	$ 167,485

Project Category: HIGHWAYS (Summary by Project Packages)

1. Pan-Philippine Highways	₱	49.955	₱ 58.899	₱ 55.628	₱ 48.447	₱ 212.929
	$	10.00	$ 1.075	$ 1.075	$ 1.000	$ 13.150
2. IBRD 1st Package	₱	—	₱ 38.564	₱ 31.186	₱ 28.000	₱ 97.750
	$	—	$ 6.427	$ 5.198	$ 4.750	$ 16.375
3. IBRD 2nd Package	₱	—	₱ —	₱ 56.388	₱ 56.356	₱ 112.744
	$	—	$ —	$ 14.398	$ 14.300	$ 28.698
4. ADB 1st Package	₱	—	₱ —	₱ 50.287	₱ 47.510	₱ 97.797
	$	—	$ —	$ 17.676	$ 16.725	$ 34.401
5. IBRD 3rd Package	₱	—	₱ —	₱ —	₱ 53.582	₱ 53.582
	$	—	$ —	$ —	$ 8.097	$ 8.097

Table IV-3-1: (Continued)

Project Category: HIGHWAYS (Summary by project packages)

PROJECT	a) Quantity to be Completed		b) Peso Costs	c) Foreign Exchange Costs	
	FY 1970-1971	FY 1971-1972	FY 1972-1973	FY 1973-1974	Total 4 Years
6. ADB 2nd Package	₱ —	₱ —	₱ —	₱ 55.490	₱ 55.490
	$ —	$ —	$ —	$ 19.014	$ 19.014
7. Other Projects					
a. National Aid Roads & Br.	₱ 71.397	₱ 88.434	₱ 80.517	₱ 122.697	₱ 363.045
	$ 11.040	$ 10.065	$ 10.065	$ 12.000	$ 45.320
b. Development and Feeder Roads	₱ 12.703	₱ 29.209	₱ 27.990	₱ 28.000	₱ 98.202
c. General Improvements	₱ 84.641	₱ 82.581	₱ 77.856	₱ 95.916	₱ 340.994
d. Special Projects	₱ 16.904	₱ 24.823	₱ 32.908	₱ 44.142	₱ 118.777
	$ 1.860	$ 1.860	$ 1.860	$ —	$ 5.580
TOTAL	₱ 235.600	₱ 322.810	₱ 412.760	₱ 580.140	₱ 1,551.310
	$ 22.900	$ 19.428	$ 50.272	$ 74.885	$ 167.485

Table IV-3-3: FOUR-YEAR PORTWORKS PROGRAM: FY 1970-1971 TO FY 1973-1974

(Costs in Thousands at Current Prices)
Annual Investment Requirements

Project Category: RAILWAY

PROJECT	a) Quantity to be Completed[1]	b) Peso Costs		c) Foreign Exchange Costs	
	FY 1970-1971	FY 1971-1972	FY 1972-1973	FY 1973-1974	Total 4 Years
1. Rolling Stock Requirements and Rehabilitation[1]	₱10,725 $ 6,725	₱ 1,125 $ 5,010	₱ 675 $ 2,155	— —	₱12,525 $13,890
2. Improvement of work shops & Line Sheds	₱ 641 $ 506	₱ 801 $ 486	₱ 3,603 $ 822	₱ 810 —	₱ 5,855 $. 1814
3. Rehabilitation of Tracks & Structures	₱ 9,255 $ 1,197	₱ 8,705 $ 1,27	₱ 8,723 $ 1,166	₱ 8,618 $ 956	₱35,301 $ 4,446
4. Maintenance of Waye	 $ 316	— $ 79	₱ 3 $ 85	₱ 8 $ 24	₱ 11 $ 504
5. Improvement of Signal & Electrical Equipment	₱ 9,351 $ 401	₱ 221 $ 132	₱ 323 $ 78	₱ 3,749 $ 608	₱13,644 $ 1,219
6. Miscellaneous Requirements	— 	— $ 688	— —	— —	— $ 688
7. Procurement of Goods Handling Equipment	₱ 2,000 $ 128	— —	₱ 500 —	— —	₱ 2,500 $ 128
TOTAL (b)	**₱31,972**	**₱10,852**	**₱13,827**	**₱13,185**	**₱69,836**
(c)	**$ 9,273**	**$ 7,522**	**$ 4,306**	**$ 1,588**	**$22,689**

[1] See next page for physical goals.

Table IV-3-2 (Continued)

PHYSICAL GOALS

PROJECT	Present Stock	Additions to Stock			
		FY 1971-1972	FY 1972-1973	FY 1973-1974	Total 4 Years
I. Rolling Stocks (Trains)	32	12	10	6	28
1. Northern Lines	20		—	4	6
a) Passenger trains	18	2	—	4	6
b) Freight trains	2	—	—	—	—
2. Southern Lines	12	10	10	2	22
a) Passenger trains	10	6	8	—	14
b) Freight trains	2	4	2	2	8

Table IV-3-3: FOUR-YEAR PORTWORKS PROGRAM: FY 1970-1971 TO FY 1973-1974
Annual Investment Requirements
(Costs In Thousand Pesos at Current Prices)

A. PORT OF MANILA

PROJECT CATEGORY	FY 1970-1971	FY 1971-1972	FY 1972-1973	FY 1973-1974	Total 4 Years
1. Marine Slipway					2,000
a) Administration Bldg., 5,000 sq.m.	—	2,000	—	—	
2. International Port					12,500
a) Breakwater, Phase "A", 960 L.M.	2,000				
b) Strengthening of Existing Marginal Wharf, 200 L.M.	2,000	—	—	—	
c) Consolidation Shed, 1,500 sq.m.	—	450	—	—	
d) Maintenance Building, 875 sq.m.	—	350	—	—	
e) Water, Sewerage, Pump and Drainage Facilities	—	600	—	—	
f) Fencing, 1,000 L.M.	—	—	100	—	
g) Breakwater, Phase "C", 950 L.M.	—	—	2,000	2,000	
h) Transit Sheds, 3 units, 15,000 sq.m.	—	—	2,000	1,000	
3. Domestic Port, North Harbor					3,000
a) Marginal Wharf, 4,000 sq.m.	—	1,000	—	1,000	
b) Reclamation, 20 Has.	—	—	1,000	—	
4. North Harbor					3,200
a) Passenger Shed, 4,000 sq.m.	—	600	—	600	
b) Pier 16, 5 x 590 m. Relieving Platform	1,000	1,000	—	—	
5. South Harbor					2,000
a) Pier 9, Fenders	—	1,000	1,000	—	
6. Miscellaneous Improvements	2,000	—	—	—	2,000
SUB-TOTAL (Portworks Special Fund)	7,000	7,000	6,100	4,600	24,700

Table IV-3-3 (Continued)

B. OTHER NATIONAL PORTS

PROJECT CATEGORY	FY 1970-1971	FY 1971-1972	FY 1972-1973	FY 1973-1974	Total 4 Years
1. Butuan, Masao, Butuan City (Agusan)	500	—	1,000	—	1,500
2. Port of Nasipit, Agusan	—	—	630	—	630
3. Legaspi, Albay	—	600	—	500	1,100
4. Tabaco, Albay	600	—	650	—	1,250
5. San Jose de Buenavista, Antique	—	—	400	—	400
6. Mariveles, Bataan	—	—	—	450	450
7. Batangas, Batangas	900	2,200	1,000	—	4,100
	$ 146.45	$ 682.40	—	—	$ 828.85
8. Tagbilaran, Bohol	—	—	200	—	200
9. Aparri, Cagayan	—	—	—	100	100
10. Port of Virac, Catanduanes	—	—	450	—	450
11. Cebu, Cebu City	500	500	—	—	1,000
12. Danao, Danao City (Cebu)	—	—	—	2,200	2,200
13. Cotabato, Cotabato	—	1,000	—	1,000	2,000
14. Makar, Cotabato	—	—	—	200	200
15. Davao (Sasa), Davao	800	800	600	1,000	3,200
	$ 124.5	$ 124.5	$ 1,000	$ 478	$ 1,727
16. Iloilo, Iloilo	—	—	—	750	750

Table IV-3-3 (Continued)

PROJECT CATEGORY	FY 1970-1971	FY 1971-1972	FY 1972-1973	FY 1973-1974	Total 4 Years
17. Iligan City, Iligan	—	—	370	230	600
			$ 390		$ 390
18. Tacloban, Tacloban City	200	500	600	220	1,520
19. Masbate, Masbate	—	—	100	450	550
20. Calapan, Mindoro Oriental	—	—	200	—	200
21. Ozamis, Ozamis City	400	500	700	—	1,600
22. Cagayan de Oro, Cagayan de Oro City	500	—	1,000	1,500	3,000
23. Pulupandan, Negros Occidental	—	—	—	1,500	1,500
24. Dumaguete, Dumaguete City	—	—	—	600	600
25. Calbayog, Calbayog City	—	1,100	—	500	1,600
26. Catbalogan, Western Samar	—	—	300	1,000	1,300
27. San Jose, Carangian, Northern Samar	400	300	—	—	800
28. Jolo, Sulu	—	—	—	350	350
29. Surigao, Surigao del Norte	—	—	200	—	200
30. Zamboanga, Zamboanga City	300	300	—	—	600
31. Survey for Various Ports	1,000	—	1,000	—	2,000
32. For Various Improvements of other National Ports	500	—	—	—	500
Sub-Total (PSF)	**6,600**	**7,800**	**9,400**	**12,350**	**36,350**
Proposed German Loan	**$ 270.95**	**$ 806.90**	**$ 1,390**	**$ 478**	**$ 2,945.85**

Table IV-3-3 (Continued)

PROJECT CATEGORY	FY 1970-1971	FY 1971-1972	FY 1972-1973	FY 1973-1974	Total 4 Years
C. NAVOTAS FISHERMAN'S WHARF SUMMARY					
1. Dredging and Reclamation	3,840		3,030		6,870
	$ 1,087		$ 365		$ 1,452
2. R. C. Wharf Pier		1,400			1,400
		$ 630			$ 630
3. Breakwater		3,400			3,400
		$ 1,425			$ 1,425
4. Sheet Filing		—			—
		$ 1,293			$ 1,293
5. Fish Market			730		730
			$ 200		$ 200
Sub-Total	**3,840**	**4,800**	**3,760**		**12,400**
ADB Loan	**$ 1,087**	**$ 3,348**	**$ 565**	**—**	**$ 5,000**
Total National Ports	**17,440**	**19,600**	**19,260**	**17,150**	**73,450**
	$ 1,358	**$ 4,155**	**$ 1,955**	**$ 478**	**$ 7,946**
D. Various Municipal Ports	250	60	480	483	1,273
TOTAL	2,040	2,000	2,000	1,750	7,780
E. LIGHTHOUSES					
For the improvement of fifty (50) lighthouses per annum including purchase of supplies, materials and necessary equipment (FSF)	1,300	1,300	1,500	1,500	5,600

Table IV-3-4: FOUR-YEAR AIRPORT PROGRAM: FY 1970-1971 TO FY 1973-1974

Annual Investment Requirements
(Costs In Million Pesos at Current Prices)

Project Category: AIRPORTS (INVESTMENT)

PROJECT	FY 1970-1971	FY 1971-1972	FY 1972-1973	FY 1973-1974	Total 4 Years
A. Rehabilitation of Airports					
1. Manila	2.50	3.00	3.00	4.00	12.50
2. Legaspi	2.60	—	—	—	2.60
3. San Jose	1.10	—	—	—	1.10
4. Butuan	0.90	—	—	—	0.90
5. Buayan	1.50	0.50	—	—	2.00
6. Dipolog	1.30	1.50	—	—	2.80
7. Sorsogon	0.70	1.50	—	—	2.20
8. Masbate	0.50	2.50	—	—	3.00
9. Laoag	1.00	3.00	4.00	—	8.00
10. Puerto Princesa	—	0.70	2.00	—	2.70
11. Daet	—	0.70	1.40	—	2.10
12. Calbayog	—	0.60	1.00	—	1.60
13. Misamis	—	0.60	1.80	—	2.40
14. Mamburao	—	—	1.20	0.70	1.90
15. Marinduque	—	—	1.20	0.50	1.70
16. Baler	—	—	0.40	0.60	1.00
17. Catbalogan	—	—	1.50	1.50	3.00
18. Pagadian	—	—	1.00	2.00	3.00
19. Villaba	—	—	0.50	1.00	1.50
20 Baguio	—	—	1.30	2.00	3.30
21. Maria Cristina	—	—	2.50	2.00	4.50
22. Corregidor	—	—	—	1.00	1.00

Table IV-3-4 (Continued)

Annual Investment Requirements
(Costs In Million Pesos at Current Prices)

Project Category: AIRPORTS (INVESTMENT)

PROJECT	FY 1970-1971	FY 1971-1972	FY 1972-1973	FY 1973-1974	Total 4 Years
23. Mt. Samat	—	—	—	1.00	1.00
24. New Roxas	—	—	—	2.00	2.00
25. Tabuk-Kalinga-Apayao	—	—	—	1.00	1.00
26. Kawayan	—	—	—	2.00	2.00
27. Iloilo	—	—	—	0.70	0.70
SUB-TOTAL	12.10	14.60	22.80	22.00	71.50
B. Expansion of Airports					
1. Davao	4.00	—	—	—	4.00
2. Mactan	—	1.00	—	—	1.00
3. Cotabato	—	1.00	—	—	1.00
SUB-TOTAL	4.00	2.00	—	—	6.00
C. Terminal Buildings					
1. Baguio	—	0.30	—	—	0.30
2. Davao	0.50	0.40	—	—	0.90
SUB-TOTAL	0.50	0.70	—	—	1.20
D Carry-over Obligations	3.00	—	—	—	3.00
TOTAL AIRPORTS	**19.60**	**17.30**	**22.80**	**22.00**	**81.70**

Table IV-3-5: FOUR-YEAR AIR NAVIGATION PROGRAM: FY 1970-1971 TO FY 1973-1974
Annual Investment Requirements
(Costs In Thousand Pesos at Current Prices)

AIR NAVIGATION FACILITIES

PROJECT CATEGORY	FY 1970-1971	FY 1971-1972	FY 1972-1973	FY 1973-1974	Total 4 Years
CAA-PHILCOX CONTRACT:					
1. Manila with its Subsidiaries:	₱ 4,312	₱ 3,400	—	—	₱ 7,712
	$ 1,800	$ 1,200	—	—	₱ 3,000
2. Laoag with its Subsidiaries:	₱ 2,000	₱ 2,000	—	—	₱ 4,000
	$ 1,200	$ 1,200	—	—	$ 1,400
3. Mactan with its Subsidiaries:	₱ 2 000	₱ 2,000	₱ 1,600	—	₱ 5,600
	$ 1,200	$ 1,200	—	—	$ 2 400
4. Zamboanga with its Subsidiaries:	₱ 2,000	₱ 2,000	₱ 2,300	₱ 400	₱ 6 700
	$ 1,200	$ 1,200	—	—	$ 2,400
5. Davao with its Subsidiaries:	₱ 2,000	₱ 2,000	—	₱ 2,000	₱ 6,000
	$ 1,200	$ 1,200	—	—	$ 2,400
CAA—MARCONI CONTRACT:		—	₱ 2,500	—	₱ 2,500
1. Manila	₱ —	—	$ 1,500	—	$ 1,500
	$ —	—	—	₱ 2,500	₱ 2,500
		$ 400	$ 500	—	$ 1,500
2. Mactan	$ 600	—	₱ 2,500	—	₱ 2,500
3. Cagayan de Oro to Zamboanga	—	—	$ 1,500	—	$ 1,500
		—	₱ 2,500	—	₱ 2,500
4. Cagayan de Oro to Davao		$ 600	$ 900	—	$ 1,500
		—	—	₱ 2,500	₱ 2,500
5. Zambo-Jolo	$ 700	$ 800	—	—	$ 1,500
	₱ —	—	—	₱ 2,500	₱ 2,500
6. Zambo-Zambo High Site	$ 700	$ 800	—	—	$ 1,500
TOTAL	**₱12,312**	**₱11,400**	**₱11,400**	**₱ 9,900**	**₱45,012**
	$ 8.6	**8.6**	**4.4**	**—**	**21,600**

Section IV — Chapter 4

POWER

1. Growth of the Electric Power Industry

Generated energy has increased at the rate of about 14.3 percent per annum during the past 16 years (1954-1969). During the same period, the National Power Corporation (NPC) generated 33.7 percent, and the Manila Electric Company (MERALCO), 56.7 percent. The remaining 9.6 percent was generated by other privately-owned and local government-owned utilities.

The program of expansion of the NPC which involves the construction of thermal plants in Luzon and hydro plants in Mindanao, complemented by the installation of transmission line extensions in areas which still remain unserved areas, is expected to accelerate the present annual average growth rate of 14.3 percent to about 20 percent annually in the next decade. The electrification of the rural areas will also be started at an accelerated pace with the effective implementation of the newly enacted National Electrification Administration Act (R.A. No. 6038). Estimates made of the number of customers served by the electric utilities indicate that only some 5 million people benefit from electric services.

These figures on power generation do not include the self-generated energy of industrial plants. But rough estimates indicate that the industrial self-generated energy may have amounted to 1,350 Gwh in 1968, which is about 18 percent of the national total (the utility-generated energy included).

2. Role of Government in Power Development

Government participation in the electric utility industry may be classified as implementary, promotional, and regulatory in nature.

(a) National Power Corporation

The implementary function, i.e., the provision of electric power generation, is performed by the National Power Corporation. The NPC was created in 1936 as a non-stock corporation by Commonwealth Act No. 120. Its task is to develop and transmit hydraulic and other power. As of the end of 1969, the installed capacities of the NPC's 5 major hydroelectric plants, 15 small hydro and diesel plants amounted to about 585,500 Kw. This capacity represents 39 percent of the national total.

As a matter of general policy, the NPC has restricted itself to generating electric power for sale in bulk to utility companies, industrial

and other non-utility power consumers. In 1969, it had about 233 utility, 42 industrial, and 46 non-utility customers.

(b) **Local Government**

Local governments are also engaged in the generation and purchase of electric power for distribution within their political boundaries. There were 108 local government-owned utilities servicing 108 towns and cities by the end of 1968. These are small companies, with substandard management and insufficient capital to sustain the continuing capital requirements for maintenance and expansion. The only utilities of importance among them are those operating in the cities of Baguio, Zamboanga, Batangas and Olongapo. The Communications and Electricity Development Authority (CEDA) of Cavite, a provincial government's creation, buys power from NPC for distribution to the different utilities in the province. It also distributes electricity to the end-consumers in towns where there are no franchised operators.

Most of the isolated municipal-owned utilities, especially those not connected to the grids of NPC and MERALCO, have maximum demands of only about 25 Kw with 6-8 hours' service.

(c) **National Electrification Administration (NEA)**

In 1961, the Electrification Administration (EA) was created under R.A. No. 2717 to meet the needs of the small utility operators for capital. It was provided with an appropriation of ₱5 million annually for five years. The amount was to be used as a revolving fund. It operated primarily as a lending institution granting long-term loans (25 years) to new and existing utilities at 3 percent interest rate per annum. However, the EA proved ineffective as a promotional agency. As a result, it was dissolved with the creation under R.A. No. 6038 of the National Electrification Administration (NEA). The new law states that the main objective for the creation of the NEA is the electrification of the entire country. To achieve the objective, the government will encourage electric service cooperatives which is believed to be the most effective vehicle.

R.A. No. 6038 provides the NEA with funds to be loaned at an annual interest rate of not more than 3 percent and maturity of not less than 25 years. The main sources of the loanable funds for the NEA are as follows:

(1) The collections from the loans made by the defunct EA;

(2) The sum of $2 million worth of goods and services to be included in the 14th to 18th Japanese Reparations schedules. The peso proceeds of $10 million importation will be included in the NEA's revolving fund;

(3) Proceeds corresponding to the share of the National Government in all franchise taxes paid by electric service entities,

which may be appropriated for the purpose of augmenting the NEA's revolving fund.

(4) Programmed amounts from the general fund of the National Government.

(d) Public Service Commission (PSC)

The electric utility is within the regulatory jurisdiction of the PSC. The rates charged by the utilities are fixed by the PSC at a level where net income before financial charges and dividends will not be more than 12 percent of their respective rate bases. If such net income goes beyond the allowable 12 percent, the incremental amounts have to revert as rebates to the customers.

Rate base is the annual average of the market value of utility plant-in-service, net of depreciation plus two months working capital. Two months working capital is further defined as the annual operating expenses, less depreciation and divided by 6.

3. Role of the Private Sector in Power Development

In 1968, there were 323 privately-owned utilities servicing 499 towns and cities. The size of these utilities ranged from the small operator serving tiny townships to the MERALCO which serves 7 cities and 37 towns in 5 provinces.

(e) Manila Electric Co. (MERALCO)

The Meralco Securities Corporation, a Philippine company, purchased in 1962 the assets and business of MERALCO from the General Public Utilities Corporation of New York (GPU). The franchise area of MERALCO, covering about 800 square kilometers is located in the provinces of Bulacan, Rizal, Cavite, Laguna, and Quezon and the greater Manila area. It also supplies wholesale power to 17 utilities.

MERALCO's principal source of power are its thermal stations, which have an aggregate nameplate rating of 689,500 Kw, augmented by purchase of substantial blocks from the NPC's hydro stations. The capacity of MERALCO is 47 percent of the national total. The peak demand in 1968 in the whole MERALCO system was 770 Mw. The peak demand has been increasing at the annual rate of 10-12 percent and the kilowatt-hour input at 13.3 percent.

4. The Four-Year Power Program

The estimated investments in power are subdivided into three categories: generation, transmission lines, and rural electrification. As mentioned earlier, the NPC's expansion program is expected to accelerate its present load growth of about 14 percent to 20 percent annually during the next decade. The electrification of the rural areas which so far has been

neglected will be increased substantially in accordance with the National Electrification Administration Act (RA 6038).

In terms of physical goals during the next four years, power generating capacities of about 275,000 Kw will be added; 840 kilometers of transmission lines of various KV will be built; and about 275 small projects of rural electrification will be implemented.

(a) **Luzon Grid**

The NPC's load growth in the Luzon grid increased at an average annual rate of 22 percent during the past 10 years (1959-1969). This growth, estimated to continue until 1972, was due to the normal demand in areas already served and to the continuing expansion of the service resulting from the connections to the system of ongoing electrification projects in the Ilocos provinces and the completion of recently approved projects in Southern Zambales and Southern Quezon provinces. After 1972, however, this load growth is estimated to slow down since NPC's electrification projects shall by then be developmental in nature. A rate of growth of about 15 percent is projected starting in 1973. With this rate of load growth, additional thermal capacities will be needed in the Luzon grid.

(1) **Bataan Thermal No. 1 and 2**

The NPC will complete the construction of Bataan Thermal No. 1, with a capacity of 75 Mw, in FY 1971. A second thermal unit, with a capacity of 150 Mw is needed in order to meet the projected load growth during the Plan period. This will be the 2nd stage in the construction of the Bataan Thermal Power Plant at Limay.

(2) **Thermal Units 3 and 4**

The installation of two additional thermal units with identical capacities of 200 Mw each, to further provide back-up energy to the hydro capacity of NPC in Luzon is being planned. Location studies are going on. For technical and economic reasons, NPC is inclined to locate the third unit south of Manila. Under a normal 40 hydro/60 thermal capacity ratio in an electric grid such as that of the NPC, the required thermal capacity for the 423 Mw hydro capacity will be about 635 Mw. The construction of the two units (400 Mw) will attain the desirable hydro-thermal capacity ratio. The long-term trend of the provincial market in Luzon indicates at this stage that 1-200 Mw should be on stream by 1976 and the next 1-200 Mw by 1978.

(3) **Upper Pampanga River Project**

This is a multi-purpose project. The construction of the irrigation phase is being financed partly through a loan from

the World Bank. The feasibility of its hydroelectric aspect is now being studied by the consultants of the project for securing a possible separate loan for the construction of the power facilities. NPC is actively assisting in the project by providing field work support and by advancing transmission line materials to provide construction power to the project site as early as possible.

(4) Caliraya Pump Storage Hydroelectric Project

A consulting group has made a study of the pump storage scheme in the Caliraya Plant. An initial 350 Mw plant to peak about 83 hours in a month or about 2.5 hours daily is being proposed at an estimated cost of ₱106 million. The estimated ultimate peaking capacity at the site is 1,040 Mw or more depending on the decided plant factor. Subject to more detailed estimate of cost using additional topographic, geologic and other field data, the NPC feels that the project is feasible from the technical and economic viewpoints. NPC believes that Caliraya is one of the best potential sites in the country in terms of low-cost hydro peaking capacity. NPC will start in FY 1971 the field investigations of the site necessary for the final feasibility study.

(5) Transmission Projects

Southern Luzon Electrification Project, Stage 1

This will be the take-off stage of the program to extend service to Southern Luzon. This initial stage proposes to serve 14 utilities and 8 industrial plants in the southern portion of Quezon province. The initial year of operation is projected in 1972. Stages II and III will extend the service to the Bicol area.

Zambales Electrification Project (Phase A)

The project is for the electrification of Southern Zambales, up to the town of Iba. The immediate potential load is composed of 8 utilities, a sugar central, and the U.S. Naval Communications Station in Cabangan.

(6) Expansion Within Present Service Area

The continuing work within the present system will be in the form of connection of new customers and/or improvements to increase the capacity and reliability of the facilities due to the increasing load. It involves the construction of new high-tension transmission lines and sub-transmission lines, new substations and/or addition of transformers. Four projects under this category have been funded with the inter-

nal cash generation of NPC and are being implemented. Three are programmed to be operational in FY 1971 and one, in FY 1972.

(7) **Further Electrification Projects**

Aside from the foregoing programs, expansion activities are needed to cover the unserved areas of Luzon. Detailed market surveys, analysis, and planning of the electrical system development for the four Bicol provinces to complete the electrification of Southern Luzon (Stages II and III of the Southern Luzon Electrification) are necessary. Similar work is essential for the Cagayan Valley. The studies of these two areas are planned to be done simultaneously in FY 1971.

(b) **Mindanao Grid**

Load projections in Iligan and Cagayan de Oro, considering only firm commitments from customers, show that the total demand in 1975 will be about 122 Mw. The firm capability of 125 Mw of the Maria Cristina plant would still be adequate to supply the demand. Considering, however, that about 90 percent of the total load is for industrial use, the possible economic loss that will be incurred should one of the units fail will be incalculable. It is imperative, therefore, that another unit be installed to provide some reserve capacity. Outside the present coverage of Maria Cristina, there is a need to expand power generating capacities.

(8) **Maria Cristina Plant, Unit No. 5 (50 Mw)**

The construction of the fifth unit in the Maria Cristina Plant is considered the most immediate project in the Mindanao area. Operational at present are 2-25 Mw and 1-50 Mw or a total of 100 Mw. Under installation, to be operational in May 1970, is the fourth unit of 50 Mw, increasing the total installed rated capacity to 150 Mw. Also under construction is the temporary Lake Lanao regulation works which will yield a uniform outflow of 100 cubic meters per second. With this regulated flow, the 150 Mw capacity at the Maria Cristina Plant will have a firm power capability of 125 Mw.

(9) **Agus River No. 1 Project (74 Mw)**

NPC has availed of the services of an American consulting firm for the following: survey, analysis and projection of the potential market; development of plans to provide electric service to the potential market in logical and attainable steps; analysis of the financial implications; and preparation of feasibility studies for projects that show the most promise or need for initial implementation in the immediate future.

The work of this stage has indicated that under a modest expansion of the electric service outside of the present cover-

age in Iligan and Cagayan de Oro, the 125 Mw firm capacity of the Maria Cristina Plant will be inadequate to supply the total load in 1975. There is, therefore, a need for additional capability and the Agus River No. 1 Project appears to be the next logical generation station to develop.

The present development plan and cost of the project include the facilities for complete lake regulation which will actually yield direct benefits to all downstream plants in the Agus River. The immediate beneficiary will be the 200 Mw Maria Cristina Plant and, in the not too distant future, the 138 Mw Agus River No. 2 Project. Also included in the project are transmission facilities which will be partially used by the next downstream plants.

Savings in investment may be attained by incorporating the full lake regulation works with the Agus No. 1 plant instead of constructing separate regulation works in the main Agus River at Marawi City.

(10) **Transmissions — Mindanao**

As mentioned earlier, phased expansion plans in the area have been undertaken for the NPC by the American consultants. The report on the work was set for submission in April 1970. The NPC will submit for external financing the electrification projects that will be proposed in the report. The extensions of high voltage lines to Butuan, Cotabato and Davao cities and of low voltage lines to the towns around these cities are necessary.

(c) **Rural Electrification**

When the Electrification Administration (EA) was dissolved by RA 6038 and its properties, assets, liabilities, records and contracts were assumed by NEA, the following were ongoing projects: 118 municipal electric projects, 25 private utility projects and 4 electric cooperatives. If these projects, after a review by the National Electrification Administration (NEA), are found feasible from the economic and engineering viewpoints, then they will be continued and completed on a priority basis. The NEA will make the review of ongoing projects for FY 1970-71.

The NEA plans to implement in FY 1971 6 rural electric service cooperatives which are currently being studied by the NEA staff, assisted by rural electrification experts of US/AID. The law that created the NEA requires that operationally viable electric service cooperatives should be given support and assistance by the government. It is felt that the most effective vehicle of accelerating rural electrification is through electric service cooperatives. The NEA plans to develop 5 to 6 electric cooperatives every year.

TABLE IV-4-1: FOUR-YEAR POWER PROGRAM: FY 1970-71 TO FY 1973-1974

ANNUAL INVESTMENT REQUIREMENTS
(In Millions at Current Prices)

	FY 1970-71	FY 1971-72	FY 1972-73	FY 1973-74	TOTAL 4 YEARS
A. Power Plants					
1. Bataan Thermal # 1	₱ 11.72	—	—	—	₱ 11.72
	$ 9.38	—	—	—	$ 9.38
2. Bataan Thermal # 2	₱ 4.00	₱ 10.00	₱ 6.00	₱ 3.24	₱ 23.24
	$ 2.17	$ 7.46	$ 5.37	—	$ 15.00
3. Thermal Unit # 3	—	₱ 10.00	₱ 18.00	₱ 17.00	₱ 45.00
	—	$ 1.19	$ 5.37	$ 8.77	$ 15.33
4. Maria Cristina # 4	₱ 8.10	—	—	—	₱ 8.10
	$ 0.20	—	—	—	$ 0.20
5. Maria Cristina # 5	—	₱ 3.00	₱ 7.00	₱ 4.00	₱ 14.00
	—	$ 0.90	$ 1.60	$ 0.70	$ 3.20
6. Agus River # 1 Hydro	—	₱ 20.00	₱ 28.00	₱ 28.00	₱ 76.00
	—	$ 3.20	$ 6.48	$ 4.52	$ 14.20
SUB-TOTAL: POWER PLANTS	₱ 23.82	₱ 43.00	₱ 59.00	₱ 52.24	₱178.06
	$ 11.75	$ 12.75	$ 18.82	$ 13.99	$ 57.31
B. Transmission Lines					
1. Ilocos Electrification	₱ 1.24	₱ 1.50	₱ 0.42	—	₱ 3.16
	$ 1.44	—	—	—	$ 1.44
2. Angat-Caliraya Tie Line	₱ 3.32	₱ 6.80	₱ 2.15	₱ 0.38	₱ 12.65
	$ 2.30	—	—	—	$ 2.30
3. Laguna-Batangas Electrification	₱ 1.85	₱ 1.09	₱ 0.43	—	₱ 3.37
	$ 0.51	—	—	—	$ 0.51

Table IV-4-1: (Continued)

	FY 1970-71	FY 1971-72	FY 1972-73	FY 1973-74	TOTAL 4 YEARS
4. Zambales Electrification	₱ 1.00	₱ 1.07	₱ 0.31	—	₱ 2.38
	$ 0.36	—	—	—	$ 0.36
5. Southern Luzon Electrification					
Stage I	₱ 3.81	₱ 4.49	₱ 4.19	₱ 2.80	₱ 15.29
	$ 1.00	$ 1.43	—	—	$ 2.43
Stage II	—	₱ 0.50	₱ 1.00	₱ 3.38	₱ 4.88
	—	—	$ 1.50	$ 0.73	$ 2.23
Stage III	—	—	₱ 0.50	₱ 3.26	₱ 3.76
	—	—	—	$ 1.18	$ 1.18
6. Mindanao Electrification	—	₱ 7.04	₱ 12.27	₱ 12,00	₱ 31.31
	—	$ 1.18	$ 2.04	$ 2.50	$ 5.72
SUB-TOTAL: TRANSMISSION	₱ 11.22	₱ 22.49	₱ 21.27	₱ 21.82	₱ 76.80
	$ 5.61	$ 2.61	$ 3.54	$ 4.41	$ 16.17
C. Rural Electrification					
1. Electric Cooperatives	₱ 5.00	₱ 10.50	₱ 10.50	₱ 10.50	₱ 36.50
		$ 3.00	$ 3.00	$ 3.00	$ 9.00
2. Municipal Electric Utilities		₱ 3.00	₱ 7.00	₱ 7.00	₱ 17.00
		$ 1.00	$ 1.50	$ 1.50	$ 4.00
3. Private Electric Utilities		₱ 2.50	₱ 2.50	₱ 2.50	₱ 7.50
		$ 1.00	$ 0.50	$ 0.50	$ 2.00
SUB-TOTAL: RURAL ELECTRIFICATION	₱ 5.00	₱ 16.00	₱ 20.00	₱ 20.00	₱ 61.00
		$ 5.00	$ 5.00	$ 5.00	$ 15.00
TOTAL POWER INVESTMENTS	**₱ 40.04**	**₱ 81.49**	**₱100.27**	**₱ 94.06**	**₱315.86**
	$ 17.36	**$ 20.36**	**$ 27.36**	**$ 23.40**	$ 88.48

Section IV — Chapter 5

TELECOMMUNICATIONS

1. Present Condition of Philippine Telecommunications

Telecommunications service in the Philippines is supplied by the government's Bureau of Telecommunications and a multitude of private communication firms. There are 75 systems engaged in telegraphy and 12 commercial companies franchised to engage in telephone service. Among the biggest are the RCPI, CRS, Sarmiento, Telefast, and the Bureau of Telecommunications. For a while, this arrangement brought about a faster telegraph service. However, during the past few years competition had been so keen that most of the smaller operators had to close down. The fragmented approach toward meeting the telecommunications requirements in the country has resulted in a slow growth of such services. It has caused the duplication of backbone routes which run parallel to each other along the commercial regions and the use of equipment of varying types or manufacture which now hinder instead of advance the development, both economically and technically, of an integrated nationwide radio and telephone network. This situation will get worse if the granting of franchises goes on indiscriminately.

The need is for a national policy on planning and expansion which should be coordinated so that maximum benefits can be attained with the minimum of investment. The concept of planning in modern communications dictates that every country must envision the interconnection of all operating systems with one another on the domestic and international levels. The CCITT and CCIR have set communication standards and recommendations which if followed at the planning phase of a communication network, be it on a nationwide or worldwide scale, can ensure a well planned and profitable system.

2. The Demands of Philippine Telecommunications

At present, the Bureau of Telecommunications operates 1,318 telegraph stations in different municipalities throughout the country. Various private communication companies operate about 300 other stations. However, these 300 stations are located practically in the same cities and localities as those of the Bureau. They also operate along parallel routes.

The broad objective of the telegraph companies is to extend the service to each and every municipality all over the country. The physical target by 1975 is the establishment of 1,600 stations.

In the telephone communication, 75 telephone exchanges, capable of 200,000 lines, provide the essential service. Of these, the Bureau of Telecommunications operates 27 exchanges with a total of 28,500 lines. The remainder represents the facilities operated by the private sector, like the Philippine Long Distance Telephone Company and the Republic Telephone Company.

Seen in the context of population growth, the existing telephone facilities in the country are much too inadequate. For every 200 people, there is only one telephone set available. This represents a telephone density of .50 which is one of the lowest in the Far East. More developed countries have a much higher telephone density. Australia has 23.98 and Japan 12.54. By 1975, a conservative projection shows that telephone facilities will increase from 200,000 to 500,000 lines. Of this, the Bureau of Telecommunications will provide 100,000 lines. The rest will be provided by the private sector. This will mean a ratio of one telephone set to every 100 people. Although this will still be inadequate to meet the projected demand, it will considerably improve telephone communications in the entire country.

3. The Four-Year Telecommunications Program

The Government has embarked on a long-range program consisting of several major expansion and improvement projects, as follows:

(1) Nationwide Telecommunications Expansion and Improvement Project (Phase I)

The goal of this project is to achieve a fully modern and completely nationwide telecommunication network. It will provide the following: high quality telephone communication between Manila and all provincial capitals; high quality and fully automatic local telephone service in 26 cities and provincial capitals throughout the Philippines; the necessary radio network to interconnect all these localities; and likewise a high speed fully automatic telegraph relay system. When completed, the project will have 25,703 channel miles of the highest quality international standard of microwave and tropo scatter networks as the backbone circuit. It will also provide 15,385 channel miles of high quality secondary links serving 48 localities and 855 channel miles of high frequency single side band link to interconnect Puerto Princesa with the radio network. The total 13,200 telephone lines will be available to serve 26 cities and capital towns and also an automatic telegraph switching network interconnecting 47 telegraph stations throughout the Philippines.

The overall accomplishment of this project is now 85 percent. Included in the four-year telecommunications program is the amount needed to complete the project.

(2) Bureau of Telecommunications Reparations Project

This project was envisaged to provide 8 automatic telephone exchanges including 1 tandem office within Greater Manila. Each will have 1,500 lines and will accommodate 20,000 subscribers and 800 trunk facilities to private exchanges. This network was inaugurated last October 13, 1969 with 4 exchanges in operation. This project is now 98.3 percent complete and all the 8 exchanges are now operational and interconnected with the Nationwide Telecommunications Expansion and Improvement Project. The objective of this project is to expand and provide adequate telephone facilities in the Greater Manila area.

(3) Yearly Extension of Telegraph Facilities

This project is a yearly provision of the Bureau of Telecommunications for the extension of telegraph services to small and medium size municipalities all over the Philippines which still do not have communication facilities. This service will consist of either a radio-telegraph, wire-telegraph or a telephone-telegraph office. Under the program of the Bureau, it is proposed that 40 stations be established yearly.

(4) The Mindanao Telecommunications Project

This project aims to modernize and develop the telecommunication facilities in the Mindanao area. Under this project, high quality radio links employing multi-channel UHF/VHF and micro radio equipment will be established to interlink the various cities and provincial capitals. Five automatic telegraph service facilities will be installed in the principal cities including subscribers' premises. Fully automatic telephone systems will be established in the provincial capitals and cities to provide long-distance subscriber dialling within Mindanao. It will also have 5 automatic telegraph switching centers installed, each having a capacity of 50 telex lines, expandable to 100 lines. This project, when completed, will be integrated to the Nationwide Telecommunications Expansion and Improvement Project through Cagayan de Oro, the take-off point.

(5) Nationwide Telecommunications Expansion and Improvement Project Capacity Saturation and Expansion (Phase II)

This project will provide for saturation and expansion of the NTEIP multiplex capacity from a 100 channels capability to a maximum of 200 channels in the North and in Bicol, Southern-Tagalog microwave links and a saturation capacity of 132 channels along Tagaytay and Cagayan de Oro tropo scatter network. It will require additional telephone and telegraph channelling and

radio bearer equipment to be interphased with existing and installed carrier and radio equipment. Additional telephone and telex lines are also provided for in this project.

(6) Government Telephone System Expansion Project

The objective of this project is to install a total of 48,000 additional lines and 500 trunks in the existing and newly completed 8 telephone exchanges within the Greater Manila area. When completed, a total of 66,500 lines can be made available to meet the perennial demands for more telephones.

(7) Extension of Nationwide Telecommunications Expansion and Improvement Facilities to other Deserving Capitals and Towns throughout the Philippines (Phase III)

The year-to-year objective of this project is to provide 6,000 additional telephone lines, 400 telex stations and 24 radio links. When completed, the communication network under the government sector can provide 39,200 additional telephone lines, 16,000 telex stations, 84 new radio links and 1,500 additional channels.

The public investment requirements during the next four years for the development of telecommunications amount to a total peso costs of ₱99 million and foreign exchange costs of $54 million. (See Table IV-5-1 for details).

Table IV-5-1: **FOUR-YEAR TELECOMMUNICATIONS PROGRAM: FY 1970-1971 TO FY 1973-1974**

INVESTMENT REQUIREMENTS & PHYSICAL GOALS

(Costs in Thousands at current prices)

PROJECT		a) Quantity to be Completed		b) Peso Costs	c) Foreign Exchange Costs	
		FY 1970-1971	FY 1971-1972	FY 1972-1973	FY 1973-1974	Total 4 Years
Project Category: TELECOMMUNICATIONS						
SUMMARY						
Channel Ends	a)	—	100	500	500	1,100
Telex Lines		—	800	430	—	1,230
Channel Radio		—	300	—	—	300
Micro Stations		—	8	7	7	22
Telephone Lines		—	14,100	21,750	28,440	
Teleprinter Machines		—	275	316	306	
Trunk Lines		3,850	—	—	—	3,850
Radio Station Equipment						
1. Micro Term		—	—	3	—	3
2. Micro Rptr		—	—	3	—	3
3. VHF Relay		—	—	0	9	9
Employees Quarters		43	—	—	—	43
Station Improvement		67	27	34	34	162
Road Development, Kms.		125.9	—	—	—	125.9
Trucks		18	5	—	—	23
Jeeps		—	32	—	—	32
	b)	₱14,620	₱19,868	₱27,716	₱36,602	₱98,806
	c)	$ 1,870	$11,142	$18,284	$22,462	$53,758

Table IV-5-1: (Continued)

Table IV-5-1: FOUR-YEAR TELECOMMUNICATIONS PROGRAM: FY 1970-1971 TO FY 1973-1974

INVESTMENT REQUIREMENTS & PHYSICAL GOALS

(Costs in Thousands at current prices)

Project Category: TELECOMMUNICATIONS

PROJECT		a) Quantity to be Completed FY 1970-1971	FY 1971-1972	b) Peso Costs FY 1972-1973	c) Foreign Exchange Costs FY 1973-1974	Total 4 Years
A. NTEI Stage I						
1. Telephone Exchanges	a.	9	—	—	—	a. 9
	b.	*				b. *
	c.	$ 884.6				c. $ 884.6
2. Radio Stations	a.	19	—	—	—	a. 19
	b.	*				b. *
	c.	$ 946.1				c. 946.1
3. Telephone lines	a.	2,900	—	—	—	a. 2,900
	b.	*				b. *
	c.	*				c. *
TOTAL	b.	*P 1,590				b. *P 1,590
	c.	$ 1,830.7				c. $ 1,830.7

*This project is under contract with ITT. The works reflected are the remaining portion of the project that will not be completed in FY 1970. The peso cost represents the Civil Work involved.

Table IV-5-1: (Continued)

Table IV-5-1: FOUR-YEAR TELECOMMUNICATIONS PROGRAM: FY 1970-1971 TO FY 1973-1974

INVESTMENT REQUIREMENTS & PHYSICAL GOALS

(Costs in Thousands at current prices)

Project Category: TELECOMMUNICATIONS

PROJECT		a) Quantity to be Completed		b) Peso Costs	c) Foreign Exchange Costs	
		FY 1970-1971	FY 1971-1972	FY 1972-1973	FY 1973-1974	Total 4 Years
B. 2nd Phase of NTEI						
1. CAA and restoration of burned equipment:						
Channel Ends	a)	—	₱ 100	—	—	100
Telex Lines		—	300	—	—	300
Channel Radio		—	300	—	—	300
	b)		₱ 2,850	—	—	₱ 2,850
	c)		$ 1,050	—	—	$ 1,050
2. Additional Channel Ends	a)	—	—	500	500	1,000
	b)	—	—	—	—	—
	c)	—	—	$ 1,500	$ 1,500	$ 3,000
3. New Micro Stations	a)	—	8	7	7	22
	b)	—	₱ 3,330	₱ 3,330	₱ 3,330	₱ 9,990
	c)	—	$ 900	$ 900	$ 900	$ 2,700
4. Additional Telephone Lines on Existing Exchanges	a)	—	3,100	3,000	2,900	9,000
	b)	—	₱ 1,750	₱ 1,750	₱ 1,750	₱ 5,250
	c)	—	$ 2,100	$ 2,100	$ 2,100	$ 6,300
5. New Exchanges	a)	—	—	5,200	5,000	10,200
	b)	—	—	₱ 6,000	₱ 6,000	₱12,000
	c)	—	—	$ 3,600	$ 3,600	$ 7,200

Table IV-5-1: (Continued)

Table IV-5-1: FOUR-YEAR TELECOMMUNICATIONS PROGRAM: FY 1970-1971 TO FY 1973-1974

INVESTMENT REQUIREMENTS & PHYSICAL GOALS

(Costs in Thousands at current prices)

Project Category: TELECOMMUNICATIONS

PROJECT		a) Quantity to be Completed		b) Peso Costs	c) Foreign Exchange Costs	
		FY 1970-1971	FY 1971-1972	FY 1972-1973	FY 1973-1974	Total 4 Years
6. Additional Telex Switching	a)	—	500	—	—	500
	b)	—	₱ 300	—	—	₱ 300
	c)	—	$ 360	—	—	$ 360
7. Teleprinter Machines and Installations (offices)	a)	—	275	230	220	725
	b)	—	₱ 450	₱ 675	₱ 675	₱ 1,800
	c)	—	$ 900	$ 800	$ 800	$ 2,500
8. Employees Quarters	a)	43	—	—	—	43
Station Improvement		37	—	—	—	37
Road Development		125.9 kms	—	—	—	125.9 kms
	b)	₱ 5,360	—	—	—	₱ 5,360
	c)	—	—	—	—	—
9. Vehicles, Trucks, Jeeps	a)	18	5	—	—	23
		—	32	—	—	32
	b)	₱ 1,000	₱ 1,300	—	—	₱ 2,300
	c)	—	—	—	—	
10. Yearly Extensions of Telegraph, improvements, etc., stations	a)	30	27	34	34	125
	b)	₱ 756	₱ 666	₱ 569	₱ 570	₱ 2,561
	c)	—	—	—	—	—

Table IV-5-1: (Continued)

Table IV-5-1: **FOUR-YEAR TELECOMMUNICATIONS PROGRAM: FY 1970-1971 TO FY 1973-1974**

INVESTMENT REQUIREMENTS & PHYSICAL GOALS

(Costs in Thousands at current prices)

Project Category: TELECOMMUNICATIONS

		a) Quantity to be Completed		b) Peso Costs	c) Foreign Exchange Costs	
		FY 1970-1971	FY 1971-1972	FY 1972-1973	FY 1973-1974	Total 4 Years
Total for NTEI						
Channel Ends	a)	—	100	500	500	1,100
Telex Lines		—	800	—	—	800
Channel Radio		—	300	—	—	300
Micro Station		—	8	7	7	22
Telephone Lines		—	3,100	8,200	7,900	19,200
Teleprinter Machines		—	275	230	220	725
Employees Quarters		43	—	—	—	43
Station Improvement		67	27	34	34	125.9
Road Development, Km		125.9	—	—	—	162
Trucks		18	5	—	—	23
Jeeps		—	32	—	—	32
	b)	₱ 7,116	₱10,646	₱12,324	₱12,325	₱42,411
	c)	—	$ 5,310	$ 8,900	$ 8,900	$23,110
C. Mindanao Telephone Development (M.T.D.)						
1. Radio Station Equipment:						
Micro Term	a)	—	—	3	—	3
Micro Rptr		—	—	3	—	3

Table IV-5-1: (Continued)

PROJECT		a) Quantity to be Completed		b) Peso Costs	c) Foreign Exchange Costs	
		FY 1970-1971	FY 1971-1972	FY 1972-1973	FY 1973-1974	Total 4 Years
VHF Relay	a)	—	—	—	9	9
	b)	—	—	₱ 2,590	₱ 4,070	₱ 6,660
	c)	—	—	$ 900	$ 770	$ 1,670
2. Telephone Exchange (Equipment)	a)	—	—	1,550	2,540	4,090
	b)	—	—	₱ 1,800	₱ 3,000	₱ 4,800
	c)	—	—	$ 1,080	$ 1,800	$ 2,880
3. Telex Switching (Equipment)	a)	—	—	430	—	430
	b)	—	—	₱ 250	—	₱ 250
	c)	—	—	$ 300	—	$ 300
4. Teleprinter Mach.	a)	—	—	86	86	172
	b)	—	—	₱ 150	₱ 150	₱ 300
	c)	—	—	$ 300	$ 300	$ 600
TOTAL FOR MTD	b)	—	—	₱ 4,790	₱ 7,220	₱12,010
	c)	—	—	$ 2,580	$ 2,870	$ 5,450
D. Government Telephone System						
Trunks	a)	3,850	—	—	—	3,850
Lines		—	11,000	12,000	18,000	41,000
	b)	₱ 7,504	₱ 9,222	₱10,602	₱17,057	₱44,385
	c)	$ 1,870	$ 5,832	$ 6,804	$10,692	$25,198

Section IV — Chapter 6

WATER SUPPLY & SEWERAGE

1. Objectives of the Program

At the end of FY 1969, only about 16.7 million of the country's population benefited from adequate and clean drinking water. The biggest and most expensive waterworks, the Manila and Suburbs Waterworks System, was giving inefficient service to only 3 million people. Outside Greater Manila, there were 1,294 waterworks systems in operation serving 46 cities, 611 municipalities and some 1,230 barrios with an estimated combined population of 7.45 million. In other remote areas, there were 20,240 artesian wells and 2,062 springs serving an additional combined population estimated at 6.37 million. There are still 4 cities, 800 municipalities and no less than 1,000 barrios that need water supply.

The inadequacy of water for domestic and industrial use is a major cause of insanitary conditions in rural and urban areas. In urban areas, it also slows down the expansion of existing industries and the establishment of new ones. The four-year water supply program aims to extend the benefits of potable drinking water to a greater segment of the population by expanding and rehabilitating existing waterworks systems together with the construction of new waterworks in the more densely populated areas of the country. For the population in the more remote areas, more springs will be developed and artesian wells dug. In Metropolitan Manila, the expansion and improvement of the obsolete and inadequate sewerage system will be undertaken. This will eliminate a serious public health hazard caused by the improper disposal of the sewerage from its industries and fast growing population.

2. The Four-Year Water Supply & Sewerage Program

The four-year program includes the following main project categories: the Manila waterworks and sewerage improvement, the improvement and construction of provincial waterworks, and the artesian wells and spring development. The pesos and foreign exchange disbursements in FY 1971-74 for these projects are shown in Table IV-6-1.

(1) The Manila Waterworks System

The Interim Construction Program of NAWASA which was started in 1964 and should have been completed in 1968 is still unfinished. The goal of the program was to increase the capacity

of the Manila and suburbs waterworks system so that it can meet the immediate needs of the area and make the supply of water adequate by the year 1970. Had the project moved as originally planned, it should have been followed by the second phase, i.e., to make the system keep up with the demand for the next decade. As it stands, by the time the interim program is completed in FY 1971 and the second phase started, the Manila waterworks system will again lag in meeting the increased demand.

The problems of NAWASA have to be resolved and serious planning should be made for its long-range construction program, otherwise the residents of Manila and suburbs will continue to suffer the consequences. It is assumed that NAWASA labor and management will no longer be insensitive to the needs of the residents of the municipalities they are supposed to service. Thus, the first phase of the long-range program is scheduled to be started in FY 1972 (on the assumption that planning will be done in FY 1971).

(2) The Manila Sewerage Expansion

The present sewerage system of Metropolitan Manila is obsolete and inadequate. A large portion of the city's sewage is discharged in a raw state in Manila Bay not far from existing port facilities and beaches. Some of the sewage is discharged into creeks and river tributaries within the city. In areas not serviced by the sewer system, partially treated sewage from septic tanks flow to creeks through street gutters and storm drains. These crude methods of sewage disposal pose a grave hazard to public health.

The early construction of an adequate sewerage system for Metropolitan Manila is a necessity. A master plan for the construction of the sewerage system has been prepared with the technical and financial assistance of the UNDP. The master plan involves a 10-year phased construction period for the sewerage plant at a peso cost of ₱392.9 million and a foreign cost of $22.3 million. These cost estimates probably need revisions.

To be undertaken with the sewerage program should be the flood control and drainage. The residents of Greater Manila are very much aware of the inadequacy of the flood control and drainage system of the area. The damage to the city by the recurrent floods are very real and yet very little is being done about the matter. A project suitable for external financing could easily be developed by the Bureau of Public Works in this field, provided political agreements could be reached among the mayors of the Greater Manila area.

(3) Provincial Waterworks

The four-year program proposes the construction of new waterworks system to serve an estimated additional combined population of 574,530 people and the improvement of existing waterworks systems serving a combined population of 459,870 people. The disbursements for these new waterworks construction and improvement projects amount to ₱28 million, at current prices, during the Plan period.

(4) Artesian Wells and Springs

Artesian wells and springs are dug and developed in areas that cannot be reached by waterworks systems. In certain cases they are used to supplement the sources of water for existing waterworks. The average artesian well and developed spring served 250 people and 500 people, respectively. The four-year program for artesian wells and spring development involves expenditures for the digging of 2,363 wells and for the development of 326 springs. The total investment also covers the cost of repair and rehabilitation works on 5,166 existing wells and 265 developed springs. When completed, this four-year program will result in bringing the benefits of potable drinking water to 2 million people in the rural areas.

Table IV-6-1: FOUR-YEAR WATER SUPPLY AND SEWERAGE PROGRAM: FY 1970-1971 TO FY 1973-1974

Annual Investment Requirements
(Costs In Million at Current Prices)

PROJECT CATEGORY: WATERWORKS

SOURCE OF FUND	FY 1970-1971	FY 1971-1972	FY 1972-1973	FY 1973-1974	Total 4 Years
1. *MANILA AND SUBURBS*					
(a) Interim Project	₱ 51.165	₱ 48.000	₱ —	₱ —	₱ 99.165
	$ —	$ —	$ —	$ —	$ —
(b) Long Range Project	₱ —	₱ 33.000	₱ 43.000	₱ 80.000	₱156.000
	$ —	$ 5.575	$ 18.380	$ 9.920	$ 33.875
(c) Sewerage Expansion	₱ —	₱ —	₱ 7.820	₱ 22.225	₱ 30.045
	$ —	$ —	$ 2.020	$ 3.506	$ 5.526
2. PROVINCIAL WATERWORKS	₱ 3.200	₱ 6.056	₱ 9.053	₱ 10.065	₱ 28.374
3. ARTESIAN WELLS & SPRING DEVELOPMENT	₱ 2.000	₱ 2.800	₱ 3.600	₱ 4.000	₱ 12.400
	$ 0.551	$ 0.774	$ 0.996	$ 1.107	$ 3.428
TOTAL PESOS	**₱ 56.365**	**₱ 89.856**	**₱ 63.473**	**₱116.290**	**₱325.984**
TOTAL DOLLARS	**$ 0.551**	**$ 6.349**	**$ 21.396**	**$ 14.533**	**$ 42.829**

Section IV — Chapter 7

EDUCATION

1. Preparatory Efforts Toward the Development of the Plan

Two national surveys of education have been started in 1970. The results of these will be used in the formulation of an integrated long-range plan for education. Such a plan will include rationally derived targets to meet manpower requirements of national development.

The first survey is being undertaken by the Presidential Commission to Survey Philippine Education. It will analyze the performance of the educational system as well as ascertain means for improving its efficiency within limits of available resources. The Survey will recommend ways of improving the system with particular emphasis on developing policies and mechanisms for channelling resources according to priorities. It will attempt to identify critical areas in Philippine education for more detailed research.

The second survey, the Higher Education Study, sponsored by the Senate Committee on Education, has objectives broadly similar to those of the National Survey. It will focus on the national economic and social demands on higher education as a basis for educational reform.

The findings and recommendations of the two surveys will provide the Department of Education with a basis for planning.

Since the Monroe Survey in 1925, several studies have been made of various aspects of education and the educational system, but none has been comprehensive enough to encompass the system as a whole.

The following are some of the major surveys:

a. **The Economic Survey Report of 1927** focused on vocational education and its relevance to the economic and social status of the people.

b. **The Prosser Study of 1930,** a follow-up of the 1927 survey, proposed measures to improve vocational education.

c. **The Quezon Educational Survey of 1936** aimed at reorienting the educational system to the country's Commonwealth status and to eventual independence.

d. **The Educational Survey of 1939** which became the basis of the Educational Act of 1940. This law abolished the seventh grade.

e. **The Joint Congressional Commtitee Study of 1948** which studied the needs for national rehabilitation after World War II.

f. **The UNESCO Mission Survey of 1949** which involved studies of elementary, secondary, adult, and teacher education.

g. **The Survey of Private Education in 1951** conducted by the Senate Special Committee on Educational Standards of Private Schools to determine whether the schools' certificates of recognition were issued in accordance with pertinent regulations, and to look into instructional standards.

h. **The Magsaysay Committee Survey of 1957** which was made mainly to find out how Philippine education "may be reinforced and improved."

i. **The 1960 Survey of Public Schools,** a comprehensive survey of the the public school system which was undertaken with a view to the possible revamp of the system.

In addition to the foregoing, there have been about 30 other specific or limited surveys of certain aspects of education. Several studies have also been made by the following agencies: Research, Evaluation and Guidance Division, Bureau of Public Schools; Research, Curriculum and Publications Division, Bureau of Vocational Education; Division of Evaluation, Research and Statistics, Bureau of Private Schools; National Coordinating Center for the Study and Development of Filipino Children and Youth; National Science Development Board; University of the Philippines; and the Research centers in various colleges and universities, public and private.

Meanwhile, the educational system continues to operate. Immediate problems and needs must be met. The school population on all levels continues to grow. Consequently, the number of teachers, school buildings, textbooks, instructional materials, equipment, and other requirements of the system increases. Any effort at strengthening the system will require increased allocation of funds. For this purpose, funds for specific projects such as textbook production, research and evaluation, in-service education, educational planning, youth affairs, state scholarships, audio-visual, college entrance examination, and library programs are included in the current expenditures of the national government during the Plan period. The average annual current expenditures for these projects amount to ₱15 million. These are within the proposed increased allocation for education. During the four-year period, the current outlay will increase from ₱1,096 million in FY 1971 to ₱1,400 million in FY 1974. The past efforts in the construction of vocational and elementary school buildings will be continued. Outlays for capital are included in the infrastructure program. See Table IV-7-1 and Table IV-9-1). After the completion of the surveys, education will probably require even higher outlays than presently programmed. These changes will be incorporatetd in the revisions of the Plan for FY 1972.

2. The Present Educational System

The general pattern of the educational system in terms of level and proportionate distribution of enrolment is indicated in Chart IV-7-1.

The proportionate distribution of the school population in public and private schools as of 1967-1968 is as follows:

Level	Public	Private
First level	96%	4%
Second level	40%	60%
Third level	10%	90%

Pre-Elementary Education

Pre-elementary education is of two parts — nursery and kindergarten — both optional and are not required for admission in Grade I. There has been an increasing enrolment in nursery and kindergarten schools. Enrolment data in 1968 are as follows:[1]

	Public	Private	Total
Nursery	59	—	59
Kindergarten	1,156	37,760	38,916
Total	**1,215**	**37,760**	**38,975**

Elementary Education

The first level of education is six years — four years primary and two years intermediate. The six grades in the public schools are free. Data on enrolment and teachers for 1967-1968 are as follows:

	Enrolment	Teachers	Teacher-Pupil Ratio
Public Schools	6,119,715	200,004	1:31
Private Schools	287,111	7,553	1:38
Aggregates	6,406,826	207,557	1:31

There are over 30,000 school units, public and private, throughout the country. The growth in elementary school enrolment during the more than 6-1/2 decades was tremendous, considering that the enrolment in 1900-1901 was only 150,000.[2]

Measures are being taken to improve the holding power of the school system. The problem of educational wastage due primarily to dropouts is related to the fact that most of the barrio schools provide educational

[1] Board of National Education, School Statistics, 1965-66.

[2] A Survey of the Public Schools of the Philippines — 1960 (Manila: U.S. Operations Mission to the Philippines, 1960)

opportunities up to Grade IV only. Data from the public schools in 1968 indicate that of every 100 pupils enrolled in Grade I in 1962, 71 reached Grade IV and 55 reached Grade VI. This was an improvement over the situation in previous years.

The language of instruction in the first two grades is the local vernacular, with English and Pilipino taught as subjects. English is the medium of instruction from Grade III up. In some private schools, however, English is used as medium of instruction in all grades.

Among the public schools, each institution is a community school. The underlying concept of the community school movement is that the school should be the nucleus of the educational and social life of the community. School-community cooperation is designed to improve community living as well as enhance pupil growth and participation in a democratic society.

Secondary Education

There are three types of four-year high schools, as follows: the 2-2 Plan high school; the vocational high school (arts and trades), agricultural, and fishery schools, and the barrio high school.

The 2-2 Plan high school has a two-year common curriculum and a subsequent two-year bifurcated program consisting of a college preparatory curriculum and a vocational curriculum. The vocational high schools are of several kinds, namely, trade schools, agricultural schools, fishery schools, and vocational and technical high schools. Likewise, the agricultural schools consist of the regional agricultural schools, the national agricultural schools, and the rural high schools. The fishery schools were established for the purpose of training for effective methods of fish capture, culture, and preservation. A relatively recent development is the establishment of barrio high schools as an answer to the need to educate out-of-school children and youth who cannot afford to study away from their communities.

Enrolment data for the second level in 1967-1968 are as follows:

Public high schools	467,298	(34 percent)
Vocational high schools	82,925	(6 percent)
Private high schools	812,906	(60 percent)
Total	**1,363,129**	**(100 percent)**

There is an increasing sentiment to strengthen high school education as a potential source of manpower needed in industry and in other aspects of the national economy.

[1] Includes enrolment in state colleges and universities

Higher Education

Higher education is preponderantly in the hands of private schools where approximately 90 percent of the college students are enrolled. Of the 659 collegiate institutions in 1967-1968, 566 (86 percent) were private schools, 22 (3 percent) were chartered state colleges and universities, 65 (10 percent) were under the Bureau of Vocational Education,[1] and 6 (1 percent) were under the Bureau of Public Schools.

Enrolment data in 1967-1968 show that Education is the field of study with the strongest drawing power. The other three are Commerce, Liberal Arts, Engineering and Technology. These are also the fields where the highest number of student graduated in the same year. Of an aggregate number of 94,965 graduates in all professional, technical, and related areas, the following were in the four fields:

Field of Study	Enrolment	Percent	Graduates	Percent
a. Education	211,192	35.17	51,852	54.60
b. Commerce	148.384	24.71	16,452	17.33
c. Liberal Arts	89 869	14.87	7,795	8.16
d. Engineering & Technology	76,103	12,67	7,444	8.16

The areas with the least drawing power in the same year are:

	Enrolment	Percent	Graduates	Percent
a. Forestry	885	.15	158	.07
b. Foreign Service	853	.14	93	.20
c. Music	507	.08	76	.08
d. Optometry	449	.07	131	.14
e. Fishery	404	.07	11	.01

It may be noted that fishery and forestry are among the least attractive fields of study. And yet, fish constitutes one of the main foods of the people and the vast forests are a source of substantial economic wealth. Both fields are in need of skilled manpower for the full exploitation of fish and forest resources. It is quite significant, however, that Commerce and Technology are among the top drawers of students and producers of graduates since the country needs more graduates in these fields in the national effort to gradually place production and distribution mainly in the hands of Filipino citizens.

Auxiliary Services

In the performance of the basic educational tasks, various auxiliary services are provided primarily for the welfare of children or to enrich the educational program, thereby reduce the drudgery of schooling and enhance, instead, its pleasantness. Such services include guidance, health

[1] Of the 65 vocational schools authorized to offer collegiate courses, only 57 had enrolments in 1967-68.

program, school feeding, and applied nutrition. A network of educational broadcasts provide radio lessons and covers 47,799 listening classes with 21,407 radio sets. A program of educational television is available in the Greater Manila area, with programming and telecasting done at the Center for Educational Television, Ateneo de Manila University.[5]

Educational films and other audio-visual facilities are available at the Audio-Visual Center, Far Eastern University; and in AV Center in various schools, colleges, and universities.

Opportunity classes are organized in many public elementary schools to provide educational opportunities for out-of-school youths interested in acquiring vocational skills. Evening classes for high school students are organized in some cities to give a chance for working students to pursue their schooling.

3. Teachers and Teacher Education

School Level	Totals
Kindergarten	840
1st Level[6]	207,557
2nd Level[6]	46,178
3rd Level	25,574
Special Vocational Courses (2nd & 3rd Levels)	1,896
Teacher Nurses (all levels)[7]	569
Guidance Coordination[7]	42
Principals & Supervisors[7]	5,082
Total	**287,448**

There are two factors that determine the number of teachers needed annually. They are (1) turnover due to retirement, death, or resignation; and (2) new classes. Turnover is relatively small. The great majority of new appointees are absorbed in the new classes organized every year to accommodate the fast-increasing school population.

As of 1967, the Board of National Education[8] reported a total of 303 teacher education institutions under public and private auspices. Of this number, 286 are private and 17 are state-supported. About 90 percent of education graduates are from the private schools and 10 percent are from the public schools.

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[5] Annual Report of the Director of Public Schools, 1968-1969 (Manila: BPS, 1969), pp.22-23.

[6] Enrolment of 177 pupils in special schools are included.

[7] For public schools only

[8] Board of National Education, *Teacher Education in the Philippines* (Manila: BNE, 1967), p. 1.

Courses offered lead to the following degrees and the level for which the teachers qualify:

B.S.E.Ed.	— for the first level
B.S.E.	— for the second level
B.S.I.E.	— for industrial education
B.S.B.E.	— for agricultural education
B.S.A.E.	— for business education
M.A.	— for the collegiate level
Ph.D./Ed.D.	— for collegiate and graduate levels

The Board of National Education has taken steps to revise the curricula for teacher education. The report of the Board's Committee on Teacher Education has been approved.

To upgrade the competencies of teachers in the field, various programs of in-service education are organized from time to itme in the public and private sectors. Teachers are also encouraged to undertake researches to improve instruction. A good number pursue advance courses in graduate schools all over the country.

4. Goals of the Four-Year National Plan of Education

The following are ideas which will be translated into management goals for administrative implementation by the bureau and agencies of the Department of Education during the Plan period.

A. Human resource development

(1) Basic schools instruction and citizenship training will be afforded all children of elementary school age to prepare them for a place in society, not merely for the next level of education.

(2) School instruction and citizenship training at the second level will prepare pupils and students for higher education or for gainful employment, in the case of school leavers, according to social needs and individual capacities.

(3) To meet the nation's needs for competence in technological, scientific, and general leadership, increasingly relevant and high quality educational programs will be provided at the third level.

B. Restructuring the pre-college preparatory period

(1) There will be an intensive study of the present 10-year (6 years elementary, 4 years secondary) pre-college preparatory period. This system, based on tradition, has not been responsive to national needs, to the physical development process of the school-age population, to the hiring practices, nor to the civil service age requirements for employment.

(2) A single, continuous, pre-college preparatory period will be considered for adoption. This will require elimination of the traditional break between intermediate and secondary education.

C. Coordination of higher education

(1) Integrated policies and strategies with respect to higher education will be formulated on the basis of studies being undertaken. Underlying consideration will be relevance to national development as much as to human development.

(2) Financing of higher education, both public and private, will be examined and coordinated.

(3) Increasing government assistance will be extended to private higher education in key sectors related to development.

(4) There will be structural and management innovations in higher education particularly with respect to the curriculum and the distribution of facilities for regional and national development and to the fuller utilization of facilities through inter-institutional cooperation.

D. Adoption of educational standards[9]

(1) Standards for educational facilities will be defined and required for all educational institutions at all three levels of the educational system. This will be implemented through an accreditation system.

(2) There will be a system of selective admission and streaming in colleges and universities through appropriate services and techniques including guidance and counseling, entrance examinations, and other related techniques.

(3) All curricular at all levels will be examined and curricular reforms will be made so as to enhance these values that induce personal, social, and economic development.

(4) Teacher training curricula will be reviewed and improved further. A review has been completed and a revised program for teacher education has been approved by the Board of National Education.

E. Management of scholarships

(1) All government-financed scholarships for study in the Philippines will be coordinated and managed for improved financing.

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[9] The priorities of the Fund for Assistance to Private Education are shown in Annex IV-7-1.

(2) Scholarships will be managed so as to extend assistance to a maximum number of needy and deserving students and pupils, and to provide incentives for attracting provincial students to development-oriented occupations and professions.

(3) New forms of financing scholarships will be devised.

F. Educational planning, programming, and management

(1) The basis of all the foregoing programs will be the survey of the Philippine educational system. The survey will also lead to the improvement of educational planning and management in the Philippines.

(2) The recruitment, development, and examination of educational administrators for the public schools will be vested in the Department of Education. Recruits for development training will not be restricted to college graduates with degrees in education, but will include all those with college degrees in social sciences, engineering, and management. After specialized training, they will be examined by the Department of Education as a prerequisite to appointment as administrators (e.g., division superintendents and supervisors).

Annex IV-7-1

Disposition of the Fund's assistance will be based on the following order of priorities:

Priority 1: Improvement of Graduate Education

Existing graduate programs often suffer from inadequate staff of graduate faculty. As a result, graduate work becomes protracted and uncertain, accounting for the nation's failure to produce enough highly-trained scholars and professionals. To meet this deficiency, assistance will be extended to develop graduate staffs, faculty fellowships, and to improve graduate facilities.

Priority 2: General Improvements in Private Education

The Fund will support projects expected to benefit not a particular institution but private education in general. Examples are projects in accreditation, institutional development through long-range educational planning, private schools admission and testing, textbook production, exchange of educational information ,and comprehensive surveys of private education.

Priority 3: Science and Mathematics Education for National Development

The training of scientific and technological manpower is essential for national development. There is now a definite effort in this area, but more should be exerted. The fund will supplement the work of other agencies in this field through acquisition of textbooks and equipment and facilities.

Priority 4: Improving University and College Administration

A pressing need of the private education system is the improvement of school administration. Better managerial methods could generate more satisfactory services as well as realize internal economies. The Fund will extend assistance to this area in the form of in-service training institutes and seminars, internships, and research.

Priority 5: Innovation and Educational Change

The Fund strives to make innovation a propulsive spirit in the private education system. Assistance will be made available to schemes emphasizing efficiency and excellence in education, such as honors sections, the use of technology for institution—building and consortium arrangements.

Chart IV-7-1: EDUCATIONAL SYSTEM OF THE PHILIPPINES

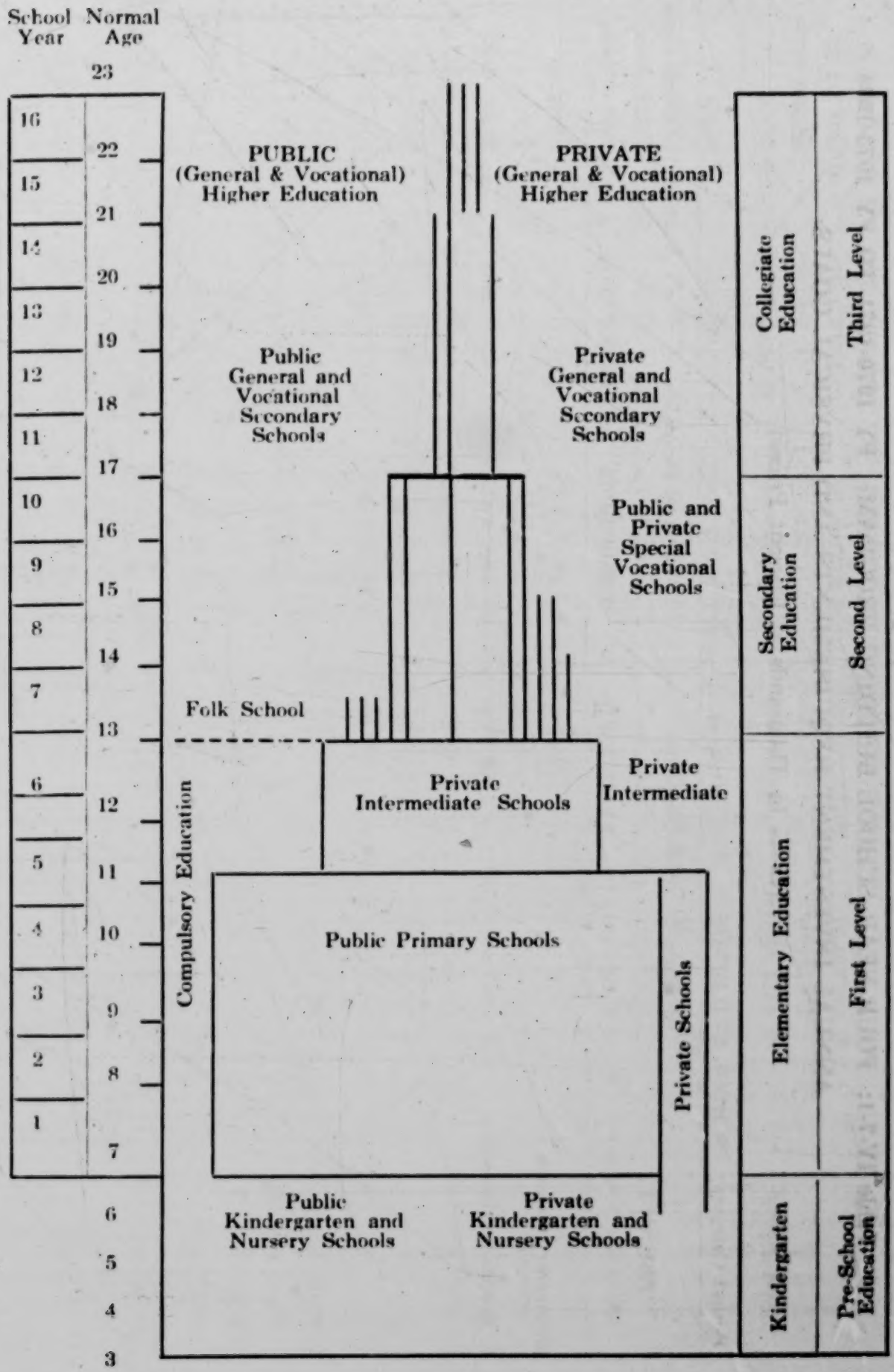

Table IV-7-1: FOUR-YEAR SCHOOL BUILDING PROGRAM: FY 1970-1971 TO FY 1973-1974
ANNUAL INVESTMENT REQUIREMENTS AND PHYSICAL GOALS
(Costs in Thousands at Current Prices)

Project Category: SCHOOL BUILDINGS

PROJECT	a) Quantity to be Completed		b) Total Peso Cost		c) Foreign Exchange Costs
	FY 1970-1971	FY 1971-1972	FY 1972-1973	FY 1973-1974	Total 4 Years
Elementary Schools					
1. Academic Classrooms	a) 4,000 units (12,000 rms)	a) 4,000 units (12,000 rms)	a) 4,000 units (12 000 rms)	a) 4,000 units (12,000 rms)	a) 16,000 unit (48,000 rms)
	b) ₱38,600 M	b) ₱18.28 M	b) ₱18.36 M	b) ₱18.44 M	b) ₱93.608 M
	c) —	c) $ 4.400 M	c) $ 4.400 M	c) $ 4.400 M	c) $13.200 M
2. Home Economics, Shops and Library Buildings	a) 500 units 1.500 rms)	a) 500 units 1.500 rms)	a) 700 units 2.100 rms)	a) 800 units (2.400 rms)	a) 2,500 units (7 500 rms)
	b) ₱ 4.825 M	b) ₱ 2.285 M	b) ₱3.213 M	b) ₱3.688 M	b) ₱14.011 M
	c) —	c) $ 0.649 M	c) $0.757 M	c) 0.866 M	c) $ 2.272 M
Sub-Total Elem. School	a) 4.500 units (13 500 rms)	a) 4.500 units 15.500 rms)	a) 4.700 units (14.100 rms)	a) 4 800 units (14.400 rms)	a) 18.500 units (55.500 rms)
	b) ₱43.425 M	b) ₱20.565 M	b) ₱21.573 M	b) ₱22.128 M	b) ₱107.691 M
	c) —	c) $ 5.049 M	c) $ 5.157 M	c) $ 5.266 M	c) $ 15.472 M

Table IV-7-1: (Continued)

Project Category: SCHOOL BUILDINGS

PROJECT	a) Quantity to be Completed		b) Total Peso Cost		c) Foreign Exchange Costs
	FY 1970-1971	FY 1971-1972	FY 1972-1973	FY 1973-1974	Total 4 Years
Vocational Schools					
1. Classrooms	a) 221 units (663 rms)	a) 218 units (654 rms)	a) 180 units (540 rms)	a) 182 units (546 rms)	a) 801 units (2,403 rms)
	b) ₱ 2.132 M	b) ₱0.997 M	b) ₱0.827 M	b) ₱0.838 M	b) $4.794 M
	c) —	c) $ 0.236 M	c) $0.195 M	c) $0.197 M	c) $0.628 M
2. Home Economics Shops and Library Buildings	a) 50 units (150 rms)	a) 50 units (150 rms)	a) 100 units (300 rms)	a) 100 units (300 rms)	a) 300 units (99 rms)
	b) ₱ 0.483 M	b) ₱ 0.229 M	b) ₱0.459 M	b) ₱0.461 M	b) ₱1.632 M
	c) —	c) $ 0.054 M	c) 0.108 M	c) $0.108 M	c) $0.270 M
Sub-Total Vocational Schools	a) 271 units 813 rms)	a) 268 units (804 rms)	a) 280 units (840 rms)	a) 282 units (886 rms)	a) 1,101 units (3,343 rms)
	b) ₱ 2.610 M	b) ₱1.226 M	b) ₱1.286 M	b) ₱1.299 M	b) ₱6.426 M
	c) —	c) $0.290 M	c) $0.303 M	c) $0.305 M	c) $0.898 M
Total Schools	a) 4.771 units (14,313 rms)	a) 4,768 units (14,304 rms)	a) 4,980 units (14,940 rms)	a) 5,082 units (15.246 rms)	a) 19,601 (58,083 rms)
	b) ₱46.040 M	b) ₱21.791 M	b) ₱22.859 M	b) ₱23.427 M	b) ₱114.117 M
	c) —	c) $ 5.339 M	c) $ 5.460 M	c) $ 5.751 M	c) $ 16.370 M

Section IV — Chapter 8

HOUSING

1. The Housing Problem, its Magnitude.

The need for decent housing is greatest from the social standpoint among the lowest income families. From the geographical standpoint, the need is greater in the urban communities because of the following factors: higher building standards in cities require more expensive dwellings; rural-to-urban migration augment the problem; and the slum and squatter colonies resulting from this need give rise to other social problems.

Basically, housing need is directly related to the population increase. However, backlogs, internal migration, and replacement of losses from the housing inventory, rather than mere population increase, make the need greater. Considering these factors, the annual national housing need is currently estimated at about 470,000 dwellings and is anticipated to rise to about 490,000 dwelling units during the 1971-1975 period. These will require the construction of 12 new dwellings per year for every 1,000 population. On the other hand, housing production (excluding barong-barongs and shanties) is estimated to have been proceeding at only 2 new dwellings per year per 1,000 population. (See Table IV-8-1). In terms of number, the bulk of this need is in the rural areas — 4 rural dwellings per 1 urban dwelling. In value terms, however, more capital investment is required in the urban areas. For every urban house and lot, 4 rural houses and lots could be purchased. The minimum land, capital and material requirements of 100,000 new urban dwellings per year are shown in Table IV-8-2. About a third of the urban need is for the Metropolitan Manila area where the number of squatter families and slum dwellers has trebled from 60,000 in 1962 to 180,000 families in 1968.

2. The Housing Objective.

The housing objective of the Government calls for the production of more homes at costs which are within the reach of the families that cannot afford to buy in the open market from the private developers. To maximize housing production in the face of limited financial resources, government assistance should be limited to low income families. These families may be classified according to inome levels and the corresponding type of housing scheme to fit each income group.

Based on capacity to pay for housing, at the bottom of the scale are families whose earnings are hardly sufficient for their food requirements. These families need social housing, i.e., they need complete or substantial subsidy from the government. For them, only two schemes are

open: the tenement housing whose rentals cover only operation costs with no provision for the recovery of construction and/or land costs; and resettlement projects, where the families are allocated small lots at subsidized prices. Legally, families entitled to social housing are those whose earnings do not exceed ₱1,800 per annum (qualifying income ceiling for the 7-storey tenements as specified in RA 3469 approved in 1962, and for resettlement lots in Sapang Palay, Carmona and San Pedro, as specified in RA 6026 approved in 1969). A family of 9 members, with an income of ₱2,500 per year can still be entitled to social housing since under RA 3469 a ₱100 allowance is provided for every dependent. There being no return of capital, social housing can only be financed by subsidy or direct budgetary transfers.

The middle group are families whose earnings exceed the social housing group but are still inadequate to pay for housing in the open market. They need government assistance in the form of sale of houses at construction costs, with long instalment periods and at below market interest rates. There can be a full recovery of book costs, but not of current market value. Unlike social housing, there is more recovery than subsidy in the kind of housing for this group, which may be called economic housing. Economic housing, however, should not be confused with commercial housing, where the landowner, financier and/or developer recover the full market value of investments plus profits.

The next group are families that do not need government subsidies but need financing. These families could be in any of the following categories: they have cash savings to buy their houses and lots; or they already own fully paid lots and have cash savings to build houses with a per unit value of about ₱8,000; they are now paying for lots and have cash savings for houses; they are now paying for lots and can pay in addition the monthly instalments (10 year @ 8%) for houses with a per unit value of about ₱8,000. Open market or private developers' costs are estimated as follows:

	M. Manila	Other Urban Areas
Land, 200 sq. m.	₱40/₱8,000	₱30/₱6,000
Building, 40 sq. m.	₱200/8,000	₱150/₱6,000
Total Cost	₱16,000	₱12.000
Mo. Instal., 10 yrs., 8%	₱194.10	₱145.60
Mo. Income required	5x/₱970	4x/₱580

Families whose income exceeds the preceding figures should be excluded from those in need of any form of government subsidy. Real Estate credits from government financial intermediaries should be available primarily to families whose earnings do not exceed ₱15,000 per annum.

Using the preceding income groupings and the Bureau of Census and Statistics survey of 1965 on the distribution of families by income groups, the aggrupation of families in Metropolitan Manila and other urban areas according to type of need for government assistance in housing is shown in Table IV-8-3.

3. Current Government Effort.

Social housing is exemplified by the following projects administered by the PHHC:

(a) The old Vitas tenement built in 1935 and turned over to the PHHC in 1960 under RA 2618;

(b) The 3-storey housing project in Pandacan for 480 families which was built in 1953 by PHHC;

(c) The three 7-storey buildings built in 1963-65 by the Bureau of Public Works in Vitas (Tondo), Punta (Sta. Ana), and Fort Bonifacio.

In all three, rentals cover only administration, with no recovery of land and building costs.

Resettlement project for urban squatters is another form of social housing. This is a cheaper alternative to tenement housing. Such projects have been undertaken by PHHC in 6 of its properties, the last 2 of which are in Sapang Palay and Carmona; and by the Land Authority in its San Pedro Tunasan property. Additional assistance has been provided by the Office of the Presidential Assistant on Housing during the last three years in the form of funds for the removal of dwellings and their occupants from squatter colonies in the Metropolitan Manila, and by the AFP construction teams in the form of road development in Carmona.

The rest of PHHC housing projects belong to the category of economic housing. Government assistance to the buyers are in the form of selling prices at construction costs which are way below market prices; full credit for rentals paid before 1963 (as directed under RA 3802); tax exemption during the instalment period; and 15-year instalment period at 6 percent interest annually. The GSIS has also undertaken two housing projects, which can fall under the category of economic housing since the houses were sold at cost and below market prices. The SSS is about to develop its first economic housing development.

The acquisition, development and sale of residential lots at cost (no housing is constructed by the government) is another form of economic

housing. This activity has been undertaken by the Land Authority (LA) and PHHC under the Land Reform Law. The LA inherited urban lands, mostly in Metropolitan Manila, from the Land Tenure Administration, and is now expediting their distribution. The biggest urban land under the LA is the Tondo Foreshore area which was ordered for sale to their occupants at ₱5 per sq. m. under RA 1597 (1956). Subsequent acquisition of urban lands, however, is entrusted by the Land Reform Law to the PHHC. Since 1965 the PHHC has purchased 5 estates.

The big bulk of new dwellings in the country is built by private individuals and developers. Government participation in privately constructed dwellings is limited to financing, insuring mortgage loans, and promoting formation of building societies.

The three government agencies engaged in financing private construction are the GSIS, SSS and DBP. The GSIS and SSS have the following loan policies: loans are limited to their members; the SSS has a maximum loan limit of ₱30,000, while GSIS has no limit but imposes a higher interest rate on amounts exceeding ₱30,000. The DBP also lends money up to ₱5,000 per borrower for the construction of DBP — designed low-cost houses. All three agencies are encouraging the construction of low-cost housing but do not impose a maximum income limit for their borrowers.

The HFC operates a mortgage insurance system for the purpose of enabling low income families to obtain soft loans from government and private lending institutions, and at the same time inducing private lending institutions to invest in housing.

Finally, there are government agencies promoting the formation of building societies, such as housing cooperatives which are being promoted by the Cooperatives Administration Office, building and loan associations which are supposed to be encouraged by the HFC and financed by DBP; and housing-oriented savings and loans associations which are regulated by the Savings and Loans Department of the Central Bank.

The NHC, newest housing agency, was organized late in 1968 and capitalized with SSS, GSIS, DBP, NIDC funds to manufacture low-cost homes. Since its capital come from lending institutions which will expect full recovery, NHC can not supply these homes for social housing projects, but for economic housing. Being a manufacturer of finished dwellings, with a rated capacity of 100,000 units per year, it can sell its fabricated dwellings not only to government agencies undertaking housing developments but also to private developers and individual builders.

4. The Four-Year Program.

The gamut of housing activity can be divided into two parts; public housing or housing built by the government; and private housing or housing built by the private sector. Both are subdivided further as follows:

(1) Public Housing

a. Social housing, i.e., more subsidy than recovery
   (1) Subsidized tenements (PHHC)
   (2) Squatter Resettlements (PHHC & LA)
   (3) Tondo Foreshore land (LA, PHHC, Private)

b. Economic housing, i.e., more recovery than subsidy
   (1) Housing Projects (PHHC & GSIS)
   (2) Urban Estates and Subdivision (PHHC & LA)

(2) Private Housing

Government participation consist of:

a. Housing Loans
   — to individual builders (GSIS, SSS & DBP)
   — to purchasers in designated projects (SSS)
   — to project developers (DBP, GSIS)

b. Mortgage Insurance (HFC) of housing loans from
   — government institutions
   — private lending institutions

c. Promotion of private housing construction through
   — Housing Cooperatives (CAO)
   — Building & Loans Association (HFC)
   — Savings & Loans Associations (CB)

After compiling and evaluating the individual agency programs covering the foregoing activities, the overall housing development plan for FY 1971-1974 as shown in Tables IV-8-4 and IV-8-5, was drawn up.

The program provides for a ₱25 million budgetary transfers per annum. These funds would assure the completion of the existing resettlement projects of the PHHC and also provide for a step-up in the building of economic housing in lots already acquired by the PHHC. Provision of ₱9 million per annum has been made to supplement the private funds in the development of tenement housing at the Tondo Foreshore area.

The GSIS, SSS and DBP will provide real estate loans at the rate of about ₱106 million in FY 1971 increasing to about ₱195 million in FY 1974. These loans will not be available for the construction of houses with estimated value of over ₱30,000 per unit, and priority will be given to families whose annual earnings are less than ₱15,000.

5. Policy Guidelines of the Government.

The following housing policies serve as the basis for the housing program:

(1) **Broad housing policy.** The promotion of the general welfare requires assistance to Filipino families, without the capacity to pay,

to have adequate shelter and improved environment. For this purpose, the government as far as the national capacity permits, will promote, finance, and establish a supply of dwelling so that those in need of housing have reasonable opportunity of living in dwellings suitable to their economic and social situation.

(2) **Specific policy on allocation of resources.** Because the need for housing increases every year, the allocation of national resources for the construction of new dwellings should be accelerated. However, as the supporting segments cannot be increased overnight, the alternative is to have a gradual increase in construction, starting with 2 new dwellings a year per 1,000 population, increasing to a production target of 3 next year, 4 the next year, and so on, until the required construction level is reached.

(3) **Specific policy on beneficiaries of housing programs.** The national housing program will maintain a judicious balance between the subsidized and non-subsidized sectors. Bearing in mind that in the Philippines the majority of the population belongs to low-income families that are unable to pay for the costs of housing without heavy subsidies, and taking into account the limited capacity of the nation to meet its housing needs, the government will promote and finance through the SSS, GSIS and DBP economic housing for those with average annual earnings of about ₱2,500-₱12,000 at reasonable prices over a long period of repayment and subsidize with public funds the establishment of dwellings for those whose income level is below ₱1,800 per annum.

(4) **Specific policy on urban lands.** There should be a simultaneous government effort to strengthen government control over private urban lands; to acquire urban lands for housing needs; and to exclude government urban lands in financing schemes connected with agricultural land reform and/or other uses.

6. **Schemes to promote private participation.**

As a matter of policy, the government will be willing to devise joint venture schemes with owners of squatted properties. In return for government effort to clear squatted properties, it can be compensated with a portion of the land cleared, which can be utilized for housing development to absorb the squatters in the entire area.

It is also desirable for the GSIS to adopt the SSS scheme of encouraging consortium of landowners, interim financiers, and/or developers to undertake low-cost housing projects where the individual units (lot and house) can be purchased by qualified borrowers within the ceilings established (₱30,000) for individual loans for home construction.

Industries which are applying for loans from the PNB, NIDC, and DBP, should be required to put up housing projects for their employees. This way, the private sector will be made to assume part of the responsibility of providing social housing.

Chart IV-8-1: PHILIPPINE HOUSING NEED 1960-80

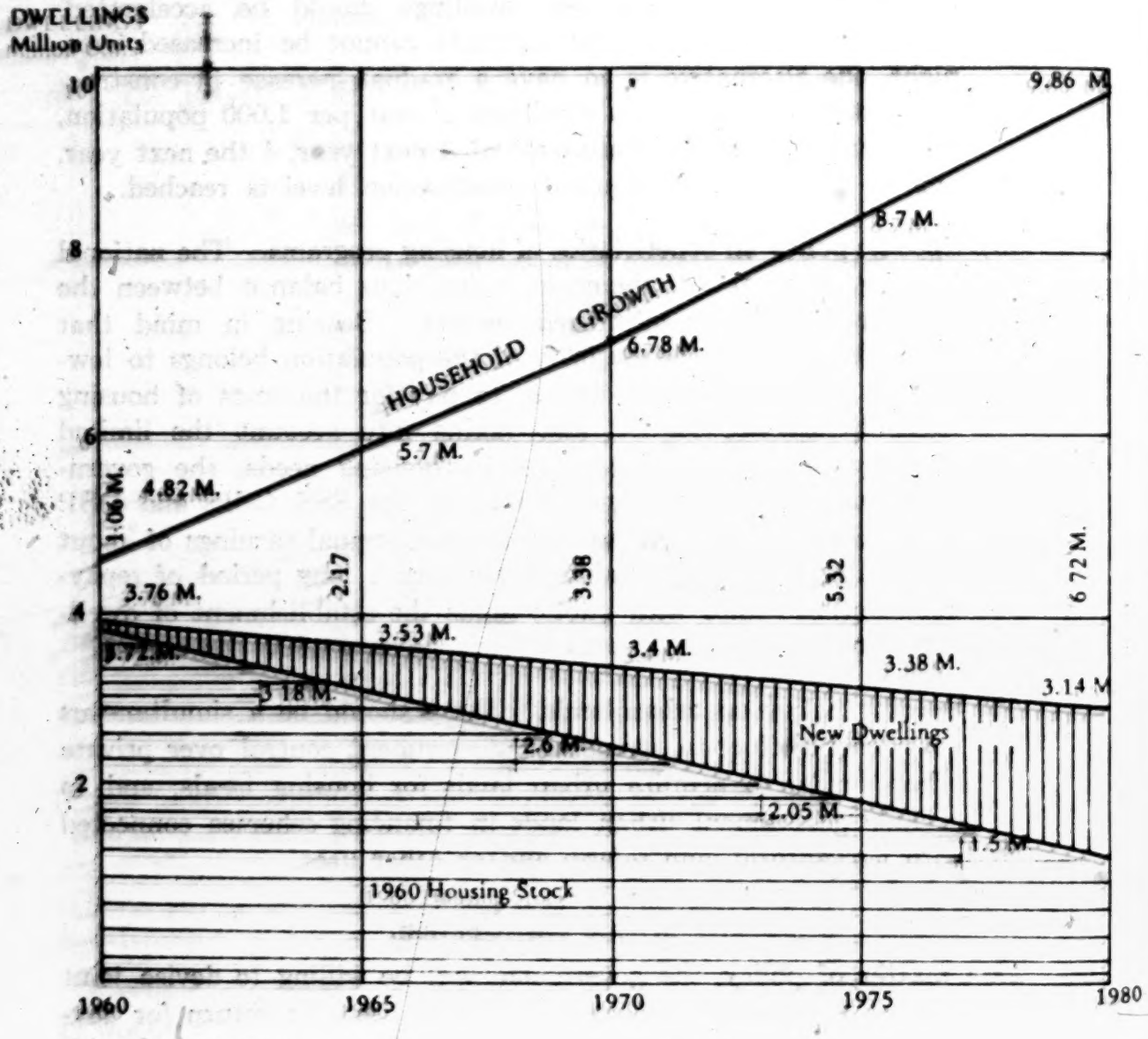

Table IV-8-1: **ESTIMATED NUMBER OF NEW DWELLINGS BUILT YEARLY FROM 1960 TO 1969**

YEAR	Permit by 42 Cities/Towns[1]	Est. Total Entire Country[2]	Philippine Population[3] (1,000)	New Dwellings per 1000 pop.
1960	6,522	43,500	27,410	1.59
1961	7,290	48,600	28,313	1.72
1962	6,700	44,700	29,257	1.53
1963	7,918	52,800	30,241	1.74
1964	8,174	54,500	31,270	1.74
1965	9,539	63,600	32,345	1.97
1966	9,796	65,300	33,477	1.95
1967	10,033	66,886	34,656	1.93
1968	10,417	69,446	35,883	1.94
1969	12,403[4]	82,686	37,158	2.23

[1] Data gathered by Bureau of the Census and Statistics from 42 cities and towns, whose total 1960 population constituted 15.6 percent of the entire country.

[2] Obtained by assuming the permits in col. 2 as 15 percent of the entire country.

[3] Figures from Bureau of the Census and Statistics.

[4] Preliminary figures, estimated from January to September reports only.

Table IV-8-2: ESTIMATED HOUSING NEEDS UP TO 1980

COMPONENTS	TOTAL	QUINQUENNIAL PERIODS				Urban-Rural Classification	
	1960-1980	1961-1965	1966-1970	1971-1975	1976-1980	Urban	Rural
A. PRESENT 1960							
1. Unacceptable Dwellings for							
a. Human habitation	520,248	130,062	130,062	130,062	130,062	78,037	442,211
b. Urban Standards	553,337	138,334	138,334	138,334	138,334	553,337	—
2. Separable Households							
a. Doubled up	4,583	1,146	1,146	1,146	1,146	687	3,896
b. Potential	38,008	47,002	47,002	47,002	47,002	28,201	159,807
Total Present	1,266,176	316,544	316,544	316,544	316,544	660,262	605,914
B. FUTURE 1961-1980							
1. Additional need							
a. Population Increase	5,028,271	862,556	1,079,643	1,346,786	1,739,286	754,241	4,274,030
b. Internal Migration	762,110	142,585	169,576	203,246	246,703	381,055	381,055
2. Housing Losses due to:							
a. Obsolescence	2,171,764	542,941	542,941	542,941	542,941	155,937	2,015,827
b. Disasters	200,000	50,000	50,000	50,000	50,000	30,000	170,000
Total Future	8,162,145	1,598,082	1,842,160	2,142,973	2,578,930	1,321,233	6,840,912
GRAND TOTAL	9,428,321	1,914,738	2,158,816	2,459,629	2,895,586	1,961,495	7,446,826
Yearly Construction Requirements	471,426	382,948	431,763	491,926	579,117	99,074	372,341
Assumed Unit Cost						₱ 6,000	₱ 1,000
20 Yr. Investment Needs	₱ 19,336 B					₱ 11,889	₱ 7,447 B
Yearly Investment Needs	₱966,785 M					₱594.4M	₱372.3 M

Table IV-8-3: AGGRUPATION OF URBAN FAMILIES BY HOUSING NEED

(Extrapolated from the Distribution of Families by Income Class, 1965 Survey, BSC Sp. Release No. 62, March, 1968)

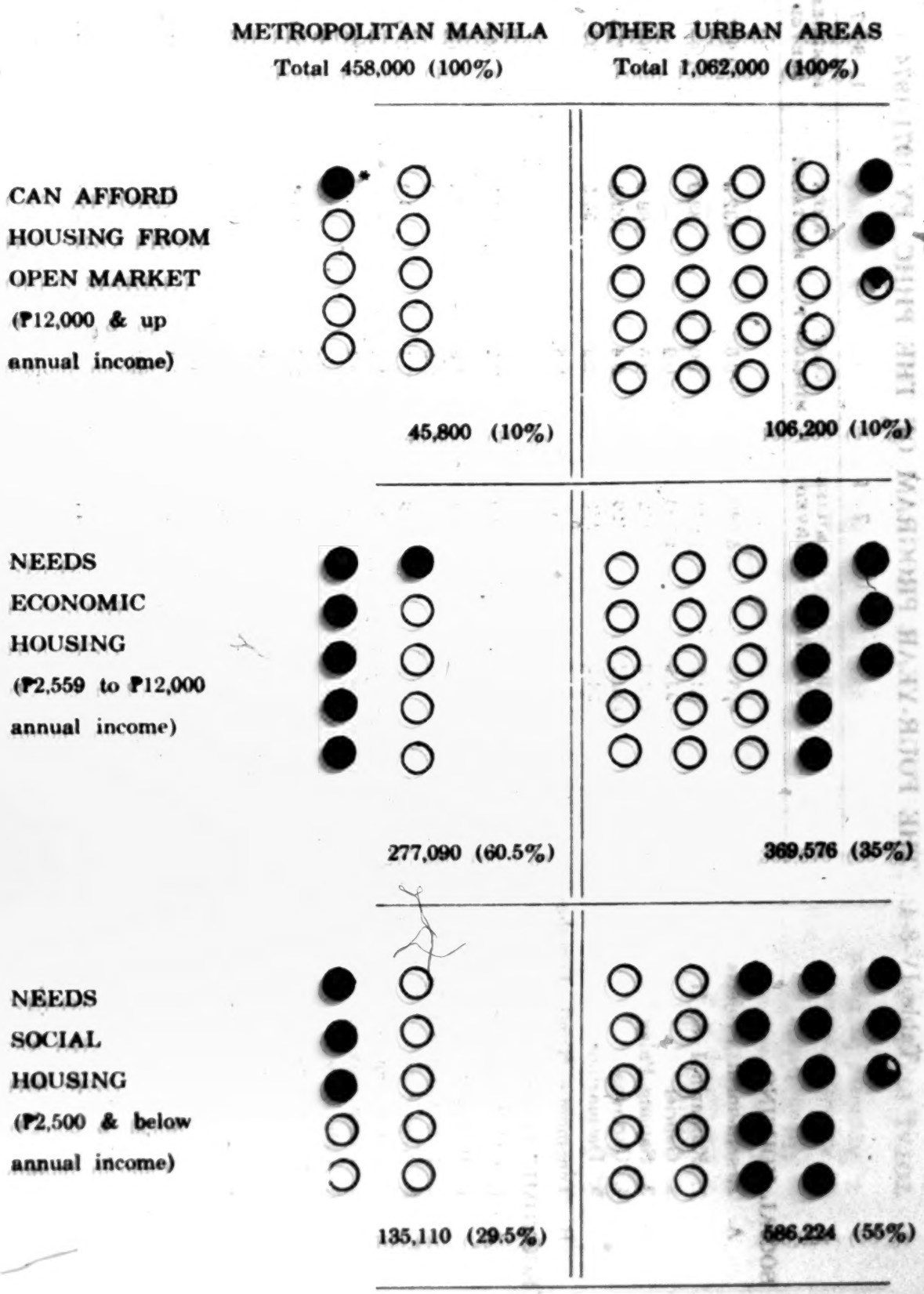

Table IV-8-4: THE FOUR-YEAR PROGRAM OF THE PHHC, FY 1971-1974

	1971			1972		
	AREA HECTARES	FAMILIES SERVED	COST MILLION ₱	AREA HECTARES	FAMILIES SERVED	COST MILLION ₱
SOCIAL HOUSING						
A. Resettlement Projects	465.2	5,080	3.0	432.3	3,877	2.1
1. Kamarin I & II	83.1	1,877	1.0	83.0	1,877	1.0
2. Gabriel	32.9	1,203	0.9	—	—	—
3. Sapang Palay	188.0	875	0.5	188.0	875	0.5
4. Carmona	102.7	750	0.4	102.8	750	0.4
5. Dasmariñas	58.5	375	0.2	58.5	375	0.2
B. Tenement — Tondo Foreshore			8.8			9.1
ECONOMIC HOUSING						
A. Low-Cost Housing	15.1	569	7.5	27.1	906	10.8
1. P-16 Caloocan	5.0	133	1.8	5.0	133	1.8
2. P-17 Quezon City	1.5	157	2.5	1.0	129	2.0
3. Naga City	8.0	189	2.1	8.0	189	2.1
4. Pampanga St., Tondo	0.6	90	1.0	0.6	84	1.0
5. Iligan City	—	—	0.1	9.6	287	3.0
6. Cebu City	—	—	—	2.9	84	0.9
B. Urban Estate Distribution	114.1	2,362	5.7	56.8	1,780	3.0
Homesite Subdivision			2.8			1.0
1. Parañaque A & B	25.9	465	1.1	—	—	—
2. Metrico, Tagaytay	6.0	101	0.3	—	—	—
3. Liberty, San Jose	23.5	462	1.4	17.2	342	1.0
Urban Estate			2.9			2.0
1. Already Purchased	7.5	204	0.3	—	—	—
2. Approved by Board	51.2	1,130	2.6	39.6	870	2.0
TOTAL PROGRAM			25.0			25.0

Table IV-8-4 (Continued)

	1973			1974		
	AREA HECTARES	FAMILIES SERVED	COST MILLION ₱	AREA HECTARES	FAMILIES SERVED	COST MILLION ₱
SOCIAL HOUSING						
A. Resettlement Projects	349.3	2,000	1.1	349.4	2,000	1.1
1. Kamarin I & II	—	—	—	—	—	—
2. Gabriel	—	—	—	—	—	—
3. Sapang Palay	188.0	875	0.5	188.0	875	0.5
4. Carmona	102.8	750	0.4	102.8	750	0.4
5. Dasmariñas	58.5	375	0.2	58.6	375	0.2
B. Tenement — Tondo Foreshore			8.9			9.1
ECONOMIC HOUSING						
A. Low-Cost Housing	36.9	1,151	13.0	36.1	1,134	12.8
1. P-16 Caloocan	—	—	—	—	—	—
2. P-17 Quezon City	1.0	129	2.0	1.0	129	2.0
3. Naga City	8.0	189	2.1	8.0	189	2.1
4. Pampanga St., Tondo	—	—	—	—	—	—
5. Iligan City	14.1	420	4.5	13.8	413	4.4
6. Cebu City	13.8	413	4.4	13.3	403	4.3
B. Urban Estate Distribution	39.6	870	2.0	39.6	870	2.0
Homesite Subdivision				—	—	—
1. Parañaque A & B	—	—	—	—	—	—
2. Metrico, Tagaytay	—	—	—	—	—	—
3. Liberty, San Jose	—	—	—	—	—	—
Urban Estate			2.0			2.0
1. Already Purchased	—	—	—	—	—	—
2. Approved by Board	39.6	870	2.0	39.6	870	2.0
TOTAL PROGRAM			25.0			25.0

Table IV-8-5: THE 4-YEAR HOUSING DEVELOPMENT PLAN, FY 1971-1974

TYPE OF PROGRAM AND IMPLEMENTING AGENCY	1971 AREA HECTARES	1971 FAMILIES SERVED	1971 COST MILLION ₱	1972 AREA HECTARES	1972 FAMILIES SERVED	1972 COST MILLION ₱
I. Public Housing						
A. Social Housing			11.8			11.2
1. Resettlement Projects (PHHC)	465.2	5,080	3.0	432.3	3,877	2.1
2. Tenement — Tondo Foreshore			8.8			9.1
B. Economic Housing						
1. Low Cost Housing			14.9			36.5
PHHC	15.1	569	7.5	27.1	906	10.8
GSIS	20.0	60	1.7	48.0	1,180	11.7
SSS	—	—	—	100.0	500	11.0
2. Urban Estate Distribution (PHHC)	114.1	2,362	5.7	56.8	1,780	3.0
Public Housing			26.7			47.7
II. Private Housing						
A. Financing — Individual Builders[1]						
GSIS			40.0			44.0
SSS			52.5			57.8
DBP		2,143	11.1		2,250	11.7
Private Housing			103.6			113.5
III. TOTAL HOUSING PROGRAM			130.3			161.2
% Growth						

[1] Part of these loans are covered by Mortgage Insurance of the HFC.

Toble IV-8-5 (Continued)

TYPE OF PROGRAM AND IMPLEMENTING AGENCY	1973 AREA HECTARES	1973 FAMILIES SERVED	1973 COST MILLION ₱	1974 AREA HECTARES	1974 FAMILIES SERVED	1974 COST MILLION ₱
I. Public Housing						
A. Social Housing			10.0			10.2
1. Resettlement Projects (PHHC)	349.3	2,000	1.1	349.4	2,000	1.1
2. Tenement — Tondo Foreshore			8.9			9.1
B. Economic Housing			39.1			48.4
1. Low Cost Housing						
PHHC	36.9	1,151	13.0	36.1	1,134	12.8
GSIS	48.0	1,180	13.1	288.0	893	21.6
SSS	100.0	500	11.0	100.0	600	12.0
2. Urban Estate Distribution (PHHC)	39.6	870	2.0	39.6	870	2.0
Public Housing			49.1			58.6
II. Private Housing						
A. Financing — Individual Builders[1]						
GSIS			48.0			52.0
SSS			97.5			97.5
DBP		2,357	12.2		2,464	12.8
Private Housing			157.7			162.3
III. TOTAL HOUSING PROGRAM						
% Growth			206.8			220.9

[1] Part of these loans are covered by Mortgage Insurance of the HFC.

Section IV — Chapter 9

HEALTH

1. Health Problems and Objectives

Substantial achievements have been made in promoting positive health through educational, preventive and control measures directed at the more common communicable diseases, and in improving community sanitation. A greater awareness on the part of the public on the value of good health, together with the interest of both the government and private sectors in health promotion has contributed to improved health conditions in the country.

These improvements have been manifested in various ways. A decrease in the incidence of the more common communicable diseases can be noted. Infant and maternal deaths have significantly been reduced. Many crippling conditions have successfully been prevented through effective medical management and rehabilitation. All these and other factors in the ecology contributed to the increase in the longevity of the average Filipino. This improved life expectancy, together with a steady birth rate, accounts for the high growth in population.

But health problems still exist. Deaths due to communicable diseases still constitute the country's major health problems. Out of the ten leading causes of death, the first four are communicable diseases: pneumonia, respiratory tuberculosis, gastro enteritis, and bronchitis. Cardio-vascular diseases, malignancy, accidents and metabolic disorders constitute the others. It must, however, be emphasized that deaths from communicable diseases have reduced substantially. In 1956, communicable diseases constituted 54.7 percent of all deaths, This was reduced to 45.0 percent in 1967. However, deaths from chronic diseases, malignancy, and other metabolic disorders have considerably increased. This phenomenon is a natural consequence of the prolongation of life expectancy of a population. As more people survive the hazards of communicable diseases in their early years, they become vulnerable to chronic disorders with advancing age.

The Department of Health is confronted with four major problems: reducing the disease burden of the people due to various causes and contingencies that threaten the promotion of efficient life; improving and expanding health services to meet the increasing demands for these services; discovering better ways and more effective methods of delivering health

services to the people at economical costs; and meeting the new challenges of the times resulting from the changes in ecology, community structure, life patterns, and urbanization.

In view of the limited resources available to the government, it may not be possible to undertake the solutions of the said problems within the next four years. Financial limitations dictate that priorities be set which will bring about gradual solutions of the first two problems mentioned above.

2. **The Four-Year Health Program**

The following programs will be given priorities within the next four years, FY 1971-74:

(1) **Strengthening and Limited Expansion of Rural Health Services**

An amendment to the Rural Health Law was enacted by Congress authorizing the establishment of different categories of rural health units in addition to the 1,459 units already in operation. Rural Health Units carry out the basic health services and in many areas these units are the only available resources which give health protection to the inhabitants. Maternal and child care constitute a big part of the rural health units' activities. In the ensuing years, it is contemplated to increase the capability of these units so that they may be able to carry out family planning activities in addition to the general health services that they provide. It is also planned to gradually increase rural health personnel in order to meet the desired ratio of health personnel to population as stipulated in the law.

(2) **Improvement of Hospital Facilities**

In 1966, the Department of Health embarked in a long range Hospital Development Program. Since that year, there were 28 emergency and provincial hospitals established in addition to the expansion of the facilities of existing provincial and emergency hospitals. With the increase in the number and expansion of hospitals, the number of beds has increased from 17,725 to 18,625, or an increase of 900 beds during the past four years. Operational expenditures of government hospitalss have increased from P54 million in 1966 to P89 million in 1969.

The cost per bed per day has also increased from P12.63 in 1966 to P17.26 in 1969. Hospital personnel complement increased from 13,090 to 14,080 during the same period, or an addition of 990 employees.

During the next four years, emphasis will be given on the improvement of the standard of care in existing government hospitals rather than on the opening of additional hospitals.

(3) Limited Expansion of Rural Health Dental Services

In line with the practice of giving comprehensive care to the rural population, dental services have been extended to many rural communities. The number of dental personnel has increased during the last four years. At present, there are 322 rural health dentists who not only give direct dental health care but also carry out certain studies in rural dental practice. Appropriations for rural dental health services have increased from a per capita expense level of ₱1.17 in 1965 to ₱1.32 in 1969.

A limited expansion of dental health services is planned during the next four years, particularly in areas that are not adequately provided with this service at this time.

(4) Control of Communicable Diseases

Acute communicable diseases have, by and large, been eradicated. The so-called pestilential diseases like plague and smallpox are no longer present. A decreasing trend has been noted in the occurrence of common acute infectious diseases. This has been reflected in the decreasing specific mortality rates due to these diseases. However, the seasonal occurrences of communicable diseases such as influenza, gastro enteritis, pertussis, typhoid, diphtheria, El Tor, etc. have continued to pose a problem to health officials in many places. Most of these seasonal occurrences have been localized and have produced transient morbidity increases. During the next four years, a more intensive campaign against these common communicable diseases will be launched. Immunization will be undertaken against diseases that may be prevented by this process.

In the case of malaria, a disease which causes untold sufferings and which undermines economic development in areas in which it is endemic, a more aggressive program aimed at eradicating the disease has been launched. Malaria operation is at present in the attack phase, and it is expected that within the next two to three years, the operations could be shifted to the consolidation phase, and still much later, to the surveillance phase. It is expected that malaria will be eradicated within the next five to eight years.

Tuberculosis is still a major disease problem in the country. Although the mortality figures have decreased, the incidence rate, as well as the infection rate, has remained relatively high. It is the plan to consolidate the gains made in TB case-finding and to very quickly place discovered cases under treatment at the INH, especially those with active lesions. BCG immunization will be intensified. With more aggressive case-finding and treat-

ment campaign together with education measures, further spread of the disease may be prevented. Tuberculosis can be successfully controlled if not eradicated, but the plan is heavily dependent on good logistical support, especially in the supply of medicines.

(5) **Environmental Sanitation**

Great strides have been made in improving the environmental conditions of many communities in the country. There are, however, areas (especially in urban communities) where sanitary conditions leave much to be desired. There is need for more aggressive campaign in sanitizing the environment. Poor sanitation abets the spread of communicable diseases. For this reason, environmental sanitation will be given importance in the apportionment of funds during the next four years. The involvement of local governments will be solicited. Newer methods of garbage and waste disposal will be tried. New health hazards in the environment will be given due attention specially those that concern with the pollution of water supplies, air pollution and other hazards that have emerged as a result of the use of many chemicals that are not only harmful to plants and animals, but also to man.

(6) **Drug Inspection**

Drug inspection will be given due impetus during the next four years to ensure the purity and safety of drugs in the market.

(7) **Family Planning**

Family planning is a new program to be undertaken by the Department of Health as part of the improvement and expansion of the maternal and child care program. This new project will be administratively supervised by the Secretary of Health. Under the Plan, it is proposed to establish pilot clinics (within the rural health units) in different parts of the country where family planning services and counselling can be made available to the public.

Table IV-9-1: FOUR-YEAR BUILDING PROGRAM: FY 1970-71 TO FY 1973-74
ANNUAL INVESTMENT REQUIREMENT
(Costs In Thousand Pesos)

PROJECT CATEGORY	FY 1970-71	FY 1971-72	FY 1972-73	FY 1973-74	Total 4 Years
A. NATIONAL BUILDINGS					
1. MIA Terminal Bldg., Rizal	600	600	700	1,700	3,600
2. Bu. of Immigration Bldg.	300	400	350	—	1,050
3. Weather Bureau Bldg., Q.C.	400	500	400	500	1,800
4. GAO Bldg., Q.C.	230	200	300	500	1,230
5. B.P.W. Bldg., Manila	—	100	200	250	550
6. Nat. Capital Bldg., Q.C.	—	100	300	500	900
7. Bu. of Posts Bldg., Manila & Prov. & Brs.	200	100	200	200	700
8. Telecom Bldg., Prov'l. Br.	—	—	100	200	700
9. Phil. Senate	—	100	100	150	350
10. Bu. of Customs & Prov'l. Br.	—	200	200	300	700
11. House of Rep.	—	100	100	150	350
12. Food & Nutrition Bldg., Manila	—	—	100	300	400
13. Bu. of Quarantine, Manila	—	100	100	150	350
14. Bu. of Std. Bldg., Manila	—	100	200	200	500
15. NDN GHQT Bldg., Q.C.	—	100	100	300	500
SUB-TOTAL: NATIONAL BUILDINGS	1,730	2,700	3,450	5,400	13,280

Table IV-9-1 (Continued)

PROJECT CATEGORY	FY 1970-71	FY 1971-72	FY 1972-73	FY 1973-74	Total 4 Years
B. UNIVERSITY BUILDINGS					
1. CLSU, Muñoz, Nueva Ecija	150	300	500	700	1,650
2. Cent. Mind. State Univ., Bukidnon	200	400	600	700	1,900
3. Mind. State Univ., Marawi C.	250	500	600	700	2,050
4. Univ. of Northern Phil., Vigan, Ilocos Sur	220	400	500	600	1,720
5. Univ. of the Phils. Brs.	600	1,000	300	1,000	2,900
6. University of Eastern Phil.	150	300	400	600	1,450
7. Bulacan Sch. of Arts & Trade, Malolos	100	200	350	500	1,150
8. Cagayan Valley Inst. of Tech. Cabagan	100	200	300	400	1,000
9. Cent. Luzon Polytech. College	200	350	500	700	1,750
10. Don Severino Nat. Agri. Sch., Cavite	100	150	250	400	1,900
11. Leyte Inst. of Tech., Tacloban City	100	200	300	500	1,100
12. Mind. Inst. of Tech. Museum, Cotabato	200	350	500	600	1,650
13. Nor. Luzon State College of Agri.	100	150	250	350	850
14. P. Borbon Inst. of Tech., Balanga	100	150	250	400	900
15. Palawan Nat. Agri. College	100	150	300	400	950
16. PCAT, Manila	100	200	400	600	1,300
17. PCC, Manila	500	850	800	1,000	3,050
18. P.M.M.A. Ft. Bonifacio, Rizal	250	400	500	500	1,650
19. PNC, Manila	150	300	500	500	1,450
20. Tarlac College of Arts & Trade	200	400	500	500	1,600
21. West Vissyas State College, Iloilo	100	200	300	500	1,100
22. Sch. for Deaf & Blind, Pasay	100	100	100	100	500
SUB-TOTAL: UNIVERSITY BUILDINGS	**4,070**	**7,250**	**9,000**	**12,250**	**32,570**

Table IV-9-1 (Continued)

PROJECT CATEGORY	FY 1970-71	FY 1971-72	FY 1972-73	FY 1973-74	Total 4 Years
C. HOSPITALS					
1. San Lazaro Hosp., Manila	700	500	600	700	2,500
2. N.G.H. Tondo Annex, Manila	500	350	600	400	1,850
3. PGH Variety Proj., Manila	—	200	300	400	900
4. Maternity Children & Men's Hosp.	—	100	150	200	450
5. PMA Station Hospital	—	100	100	150	350
6. Nat. Children's Hosp., Q.C.	—	50	100	100	250
7. National Mental Hosp., Mandaluyong, Rizal	—	150	200	200	550
8. Geriatrics Ctr. Bldg., Manila	—	100	50	100	250
9. Baguio Gen. Hosp.	—	150	250	300	700
10. J.R. Memo. Hosp. (NGH) Main, Manila	—	100	100	150	350
11. Davao Medical Training Hosp.	—	100	100	150	350
12. Cagayan Prov'l. Hosp., Tuguegarao	—	100	250	200	550
13. Balanga Prov'l. Hosp., Bataan	—	100	200	250	550
14. Camarines Sur Prov'l. Hosp.	—	100	100	200	400
15. Zamboanga Gen. Hosp.	—	100	200	250	550
16. Cotabato Prov'l. Hosp.	—	100	200	250	550
17. Bohol Prov'l. Hosp.	—	—	100	100	200
18. Tarlac Prov'l. Hosp.	—	100	150	150	400

Table IV-9-1: (Continued)

PROJECT CATEGORY	FY 1970-71	FY 1971-72	FY 1972-73	FY 1973-74	Total 4 Years
19. Quirino-Memo. Gen. Hosp., Q.C.	—	150	150	150	450
20. Nueva Ecija Prov'l. Hosp., Cabanatuan City	—	50	100	100	250
21. Leyte Prov'l. Hosp. San Fernando	—	—	100	100	200
22. Pto. Princesa Prov'l. Hosp., Palawan	—	50	100	50	200
23. Aklan Prov'l. Hosp., Kalibo	—	50	150	200	400
24. Roxas Memo. Hosp.	—	50	100	100	250
25. Sulu Prov'l. Hosp., Jolo	—	50	100	50	200
26. Camarines Norte Prov'l. Hosp.	—	50	100	100	250
27. Batanes Prov'l. Hosp.	—	50	100	—	150
28. Lanao del Sur Prov'l. Hosp.	—	—	—	100	100
29. Rizal Memo. Hosp., Dapitan	—	—	—	100	100
30. Butuan Hosp., Butuan City	—	—	—	100	100
31. Isabela Prov'l. Hosp., Iligan	—	—	100	50	150
32. Samar Prov'l. Hosp., Catarman	—	—	—	100	100
33. Bulacan Prov'l. Hosp., Malolos	—	—	—	100	100
34. Negros Occ. Prov'l. Hosp.	—	—	—	100	100
35. Bontoc Prov'l. Hosp., Mt. Prov.	—	—	—	50	50
36. Bayombong Prov'l. Hosp., N. Viscaya	—	—	—	50	50
37. Bataan Prov'l. Hosp., Balanga	—	—	—	50	50
38. Occ. Mindoro Prov'l. Hosp., Calapan	—	—	—	50	50
39. Albay Prov'l. Hospital	—	—	—	50	50
40. Antique Prov'l. Hosp., San Jose	—	—	—	100	100
41. Nor. Mindanao Res. Hosp.	—	—	—	50	50
42. Surigao del Sur Prov'l. Hosp.	—	—	—	50	50
43. Itbayat Emerg. Hospital	—	—	—	50	50

Table IV-9-1: (Continued)

PROJECT CATEGORY	FY 1970-71	FY 1971-72	FY 1972-73	FY 1973-74	Total 4 Years
44. Northewestern N.V. Emerg. Hosp.	—	—	—	50	50
45. Calamaniugan Emerg. Hosp., Cagayan	—	—	—	50	50
46. Itawes Hosp., Cagayan	—	—	—	50	50
47. Northern Isabela Emerg. Hosp.	—	—	—	50	50
48. Balitucan Emerg., Pampanga	—	—	—	50	50
49. Bondoc Pen. Gen. Hosp., Q.C.	—	—	—	50	50
50. Cuyo Hosp., Palawan	—	—	—	50	50
51. Lemery Emerg. Hosp., Batangas	—	—	—	50	50
52. Alabat Island Emerg. Hosp., Q.C.	—	—	—	50	50
53. Angeles City Emerg. Hosp., Pampanga	—	—	—	100	100
54. Ticao Emerg. Hosp., Masbate	—	—	—	100	100
55. Allen Emerg. Hosp., Samar	—	—	—	50	50
56. Bantayan Emerg. Hosp., Cebu	—	—	—	100	100
57. Northwestern Leyte Gen. Hosp.	—	—	—	50	50
58. Surigao Emerg. Hosp., Surigao	—	—	—	50	50
59. Caniguin Prov'l. Hosp. & Site Extension	70	50	—	—	120
60. Pampanga Prov'l. Hosp., San Fernando	—	50	100	200	350
61. Abra Prov'l. Hosp. Bangued	—	—	—	100	100
SUB-TOTAL: HOSPITALS AND SANITARIUM	1,270	3,100	4,950	7,350	16,670
TOTAL BUILDING INVESTMENT	7,070	13,050	17,400	25,000	62,520

SECTION V

FINANCING THE PROGRAM

1. Financing the Public Investments
2. Financing the Private Investments

Section V — Chapter 1

FINANCING THE PUBLIC INVESTMENTS

The desire of the government to increase its role and responsibility in shaping economic and social activities is reflected mainly in the budget. In carrying out its functions and duties, the government is faced with such recurring problems as: the demand for expenditures in public services exceeding the available resources; the need to establish priorities between current and capital outlays and among different types of expenditures within each category; and the inadequacy of savings to finance capital outlays which have induced inflationary borrowings since there is no secondary market for long-term bonds.

1. Policy Implications

In order to ensure the smooth implementation of the fiscal sector program, the following are the policy measures:

(1) To increase further the efficiency in tax collection in order to provide more revenues and thus reduce the financial gap as well as minimize the need for new taxes.

(2) To abolish Special Funds which are inactive and transfer them to the General Fund in order to provide more flexibility in the use of funds.

(3) To improve the efficiency in formulating annual operating plans and programs and in implementing projects embodied therein. Emphasis should be given to generating more surplus for gross capital formation while, in the composition of current expenditures, priority should be given to developmental services.

(4) To minimize the inclusion of strictly political projects in the investment program.

(5) To avoid borrowings from the Central Bank, except for meeting the seasonal lags between disbursements and receipts.

(6) To develop a secondary market for medium- and long-term securities of the Philippine government.

2. Local Governments Fiscal Operations [1]

The fiscal operations of the local governments are of increasing importance. With the passage of the Decentralization Bill, the national

[1] Unless otherwise stated, all prices mentioned in this chapter are in current terms.

government expects the local governments to undertake more activities during the Plan period. The following is a summary of local government fiscal operations: expenditures are anticipated to increase by 12.3 percent from ₱1,166 million in FY 1971 to ₱1,564 million in FY 1974; the bulk of the expenditures, with an average of 38.7 percent, will go to economic development, followed by 23.5 percent for social development, and another 20.2 percent for general government; revenues from taxation are projected to increase from ₱810 million in FY 1971 to ₱1,078 million in FY 1974; current surplus is expected to rise from ₱266 million in FY 1971 to ₱290 million in FY 1974; and gross capital formation is projected to grow from ₱255 million in FY 1971 to ₱394 million in FY 1974.

3. National Government Fiscal Operations

(a) Current Expenditures

Heavy current and capital spending during FY 1969 and the first half of FY 1970 necessitated a slowing down in expenditures for the second half of FY 1970 and the entire FY 1971. About two-thirds of the estimated total expenditures for FY 1970 was spent during the first semester. Consequently, fiscal restraint has to be undertaken throughout FY 1971 in order to minimize the inflationary pressures on the domestic price levels and on the balance of payments.

For FY 1971, total expenditures are estimated to grow by 3 percent over the estimated total expenditures for FY 1970, mainly due to the expected increase in the minimum wage and the effects of the floating rate on prices of materials and equipment. During the Plan period, total expenditures are projected to grow by 10.8 percent, from ₱4,020 million in FY 1971 to ₱5,472 million in FY 1974.

The magnitude and direction of spending will be as follows:

(1) For economic development, expenditures will increase from ₱1,232 million in FY 1971 to ₱1,762 million in FY 1974, thus registering a growth rate of 12.7 percent. Its share in total expenditures will average about 32 percent throughout the Plan period.

(2) For social development, expenditures will also grow by 12.5 percent, from ₱1,390 million in FY 1971 and to ₱1,980 million in FY 1974. Its share in total outlays is around 35.8 percent.

(3) National defense expenditures will increase by 8.9 percent, with the expenditures for the maintenance of peace and order growing at a higher rate. The defense expenditures will absorb about 14.1 percent of total expenditures.

(4) Expenditures for general government will increase by ₱39 million, from ₱531 million in FY 1971 to ₱570 million in

FY 1974. Its share in total expenditures will be about 11.2 percent.

(5) Debt service expenditures will be on the uptrend, from ₱287 million in FY 1971 to ₱410 million in FY 1974. Its average share will be about 6.9 percent.

Among current expenditures, the item which will be given emphasis is development services. The share of developmental services to total current expenditures will be growing from 40.6 percent in FY 1971 to 43.4 percent in FY 1974, averaging about 42.3 percent during the Plan period. Among developmental services, the emphasis will still be on education. Its share in total developmental services will be about 79.5 percent during the Plan period. On other hand, public health and medical care will have an average share of 16.3 percent while the share of labor and welfare will amount of about 4.2 percent.

(b) Capital Outlays [1]

Gross capital formation will form the bulk of the capital expenditures. The share of gross capital formation will increase from 80.5 percent in FY 1971 to 84.6 percent in FY 1974. Growth in gross capital formation will also be fast, averaging about 19.6 percent annually in FY 1971 to FY 1974. The distribution by sector are as follows:

(1) Investments in agriculture and natural resources will amount to about ₱200 million annually, or approximately 18.8 percent of total capital expenditures.

(2) Investments in transportation and communications will grow from ₱347 million in FY 1971 to ₱645 million in FY 1974. Its share in total capital outlay will be about 45.3 percent and in expenditures for economic development, about 83.2 percent.

(3) Investments in commerce and industry will be relatively modest. It will average only about ₱74 million every year. Correspondingly, its share in total capital outlay and in capital expenditures for economic development will also be smaller.

(4) Investments in other economic development projects will grow by 4 percent. Its share in total capital outlay will be about 12.2 percent and in economic development, approximately 14.6 percent.

(5) Investments for the social servicess will be ₱40 million in FY 1971 and will reach ₱185 million by FY 1974.

[1] Only the peso requirements are included in these figures.

(c) **Revenues**

To finance the expenditure program, the government will first rely on revenues from ordinary sources which will grow from ₱3,621 million in FY 1971 to ₱4,762 million in FY 1974 or an average growth rate of 7.1 percent. Of this amount, revenue from taxation will comprise about 86.4 percent. The rest will come from earnings and other credits.

The current surplus, based on existing tax structure[1], although expected to grow from ₱297 million in FY 1971 to ₱624 million in FY 1974, cannot finance the entire programmed capital outlays. As a result, the financial gap will be supplemented by additional revenues from new tax measures which are expected to increase from ₱381 million in FY 1971 ₱603 million in FY 1974. The balance will be financed by borrowing.

(d) **Domestic Borrowing**

Considering that improvement in tax collection and additional revenues from new tax measures are still inadequate to finance the gap between expenditures and resources, a domestic borrowing program of about ₱112 million every year is planned. These borrowings will come from non-inflationary sources such as the SSS, GSIS and private financial intermediaries like insurance companies. It is also envisaged that special bond issues will be sold in smaller denominations to the public.

(e) **Additional Taxation**

Allowing ₱112 million a year for tolerable long-term bond issues, the financial gap remaining to be met by mobilizing new tax resources for the national government capital outlays during the Plan period will be ₱517 million per annum (increasing from ₱381 milion in FY 1971 to ₱603 million in FY 1974).

The following new tax revenues shoud be realizable without undue burden on the economy.

(1) **Export Tax (FY 1971)**

> This proposal seek to impose a gradually diminishing levy on the F.O.B. peso proceeds of selected exports. The rate of levy is at 6-12 percent from the date of effectivity until June 30, 1971 and gradually declining every fiscal year by two percentage points until June 30, 1974.

The proceeds from the tax shall be allocated as follows:

(a) 25% will be used by the Development Bank of the Philippines for loan assistance to export industries, including those adversely affected by the Central Bank Circular

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[1] Exclusive of the 75 percent proceeds from the export tax.

No. 289, with priority to be given to industries processing domestic raw materials for export:

(b) 75% will be available to the national government.

(2) **Percentage Tax on Stock Transactions (FY 1972)**

This measure seeks to impose a ½ percent tax on the value of stock transactions handled in the stock exchanges, to be levied on the buyer and the seller. Another feature of the bill will be the requirement that any stock transaction has to bear the taxpayer's account numbers of both the buyer and seller. This will tend to curtail the use of fictitious names and give the Bureau of Internal Revenue information on individual or corporate incomes, capital gains and/or losses.

(3) **Increase in the Specific Taxes on Gasoline, Diesel Fuel, and Lubricating Oil (FY 1972)**

The proposal seeks to increase the specific taxes on gasoline, lubricating and diesel fuel oils in order to raise funds to support a continuing program of road construction. Enactment of this proposal is crucial as the availability of peso funds will determine, to a large extent, the capability to undertake foreign-assisted projects such as those to be submitted to the World Bank and the Asian Development Bank for possible assistance.

It is proposed that for gasoline, with octane rating of not more than 90, the tax be increased from ₱.08 to ₱.12 per liter, and from ₱.08 to ₱.14 per liter if the octane rating is in excess of 90. In the case of diesel fuel oil, the tax will be increased from ₱1 per metric ton to ₱3. The tax on lubricating oils will be increased from ₱.07 per liter to ₱.08. Proceeds of this proposed increase will be used exclusively for road and bridge projects.

(4) **5 percent Increase on the Duty of Commodities Classified as "Others" and 5 percent Duty on Exempt Commodities (FY 1973).**

(5) **Legalized Gambling (FY 1974)**

This bill seeks to expand the coverage of legalized gambling by authorizing the licensing of the gambling establishments in certain areas to be designated by a Gaming Commission. Under the bill, the following will be collected: permit fee of ₱300; annual license fee of ₱500 for each type of game per table; and 10 percent tax on gross receipts.

Revenues raised from this source shall be distributed as follows:

(a) To the Gaming Commission — the entire permit fee, 10 percent of the license fee, and 20 percent of the gross receipts tax;

(b) To local governments — 90 percent of the annual license fee; and

(c) To the National Government — 80 percent of the gross receipts tax.

(6) Increase in Forest and Quarry Charges (FY 1974)

As a measure to generate funds for flood control projects, it is proposed that the following additional charges be collected:

(a) ₱1 per cubic meter of timber out from any public forest or reserve;

(b) 10 percent of the actual market value of gums, resins, rattan and other forest products removed from any public forest or reserve; and

(c) ₱.50 per cubic meter of stone, gravel, sand, earth, and other materials extracted or removed from public lands and beds of public waters.

(7) Withdrawal of Assistance to Certain Gold Producers (FY 1974)

It is recommended that price support be extended only to gold producers with at least 70 percent of their annual sales coming from newly mined gold. It is expected that government savings will be about ₱5.5 milion annually.

(8) Increase in Travel Tax (FY 1974)

In addition to existing taxes or fees on foreign travel, there will be collected a fixed travel tax of ₱100 on all permanent residents leaving the country, except crew members of ships and airplanes plying international routes. The proceeds, however, will go to the general fund and not to BTTI.

(9) Additional Taxes on Winnings (FY 1974)

(a) An additional tax equivalent to 5 percent of all winnings in horse races, jai-alai, and cockpits is also proposed.

(10) Gradual Abolition of Tobacco Subsidy

The bill seeks to abolish gradually the Special Tobacco Fund by reducing it by 20 percent at the end of the first year after the approval of the Act, 40 percent at the end of the second year, 60 percent at the end of the third year, 80 percent tat the end of the fourth year, and 100 percent at the end of the fifth year. Enactment of this proposal will have the effect of releasing to the General Fund (after all claims of the Central Bank and FACOMAS, shall have been fully paid) what otherwise would accrue to tobacco assistance.

The year indicated after each proposal represents the effectivity date of the tax measure. The tax proposal should be approved by Congress a year earlier. The projected revenues from these tax measures are shown in Table V-1-7.

These are moderate tax proposals which could be imposed, provided there is a will on the part of the legislative branch of the government, without involving really heavy tax burdens. Yet, the proposals should be quite adequate to fill the remaining gap between the estimated financial requirements and the other prospective resources for meeting these requirements in FY 1971-1974.

However, if these tax proposals do not materialize, then there is no other alternative but to reducc the capital outlays by an annual average of about ₱393 million. The drop in public investment will be much greater since the country will not have sufficient peso counterpart funds to support externally-financed projects. If additional tax burdens, which are not unduly excessive, are unacceptable to Congress and to various pressure groups, then there should be no corresponding expectations for massive improvements of infrastructure facilities. All sectors of the economy should realize that, even if there will be no wastage of resources, the facilities and services which the government can provide are always directly related to the tax burden the citizens are willing to carry.

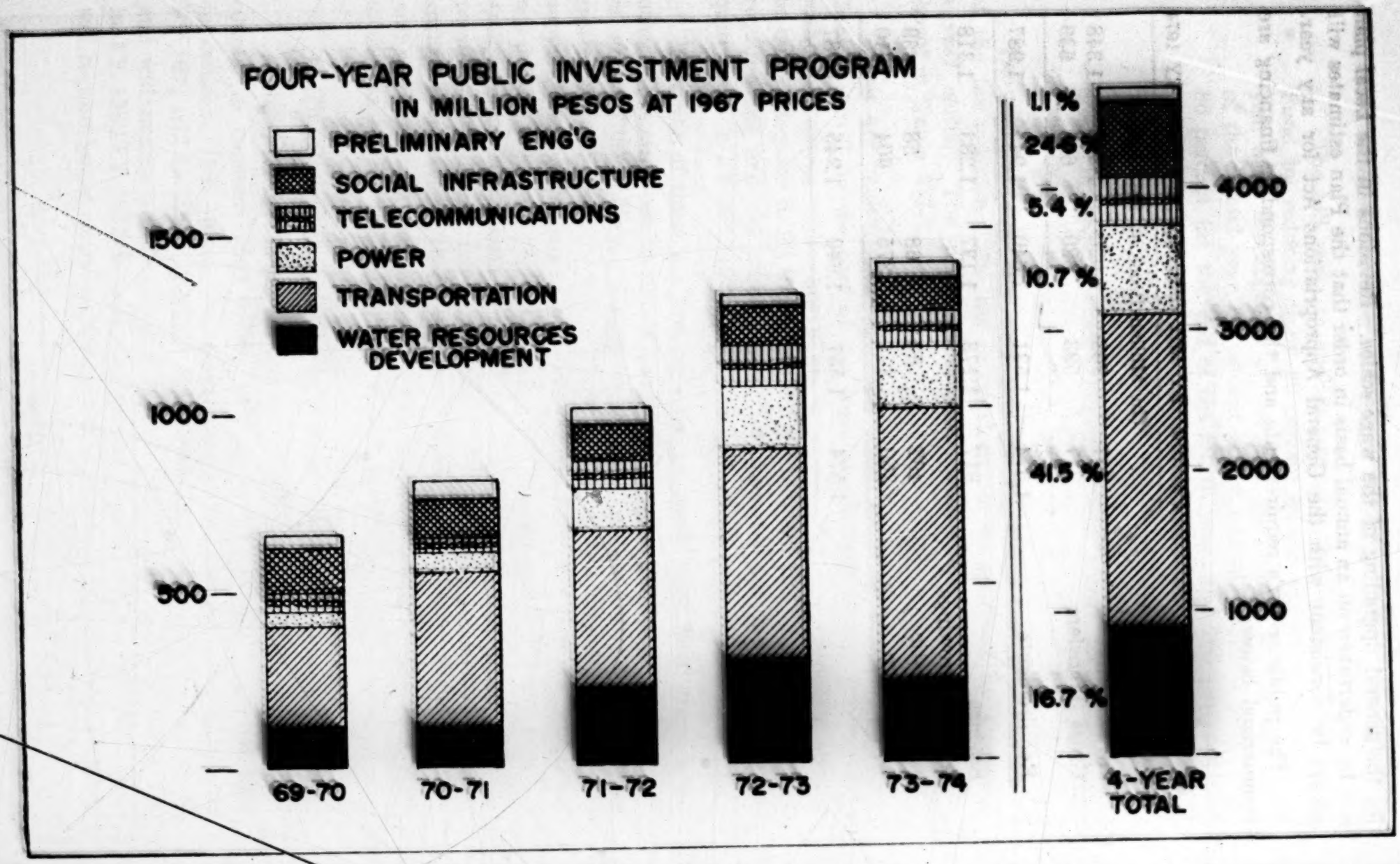
4. The Budget in Relation to National Accounts

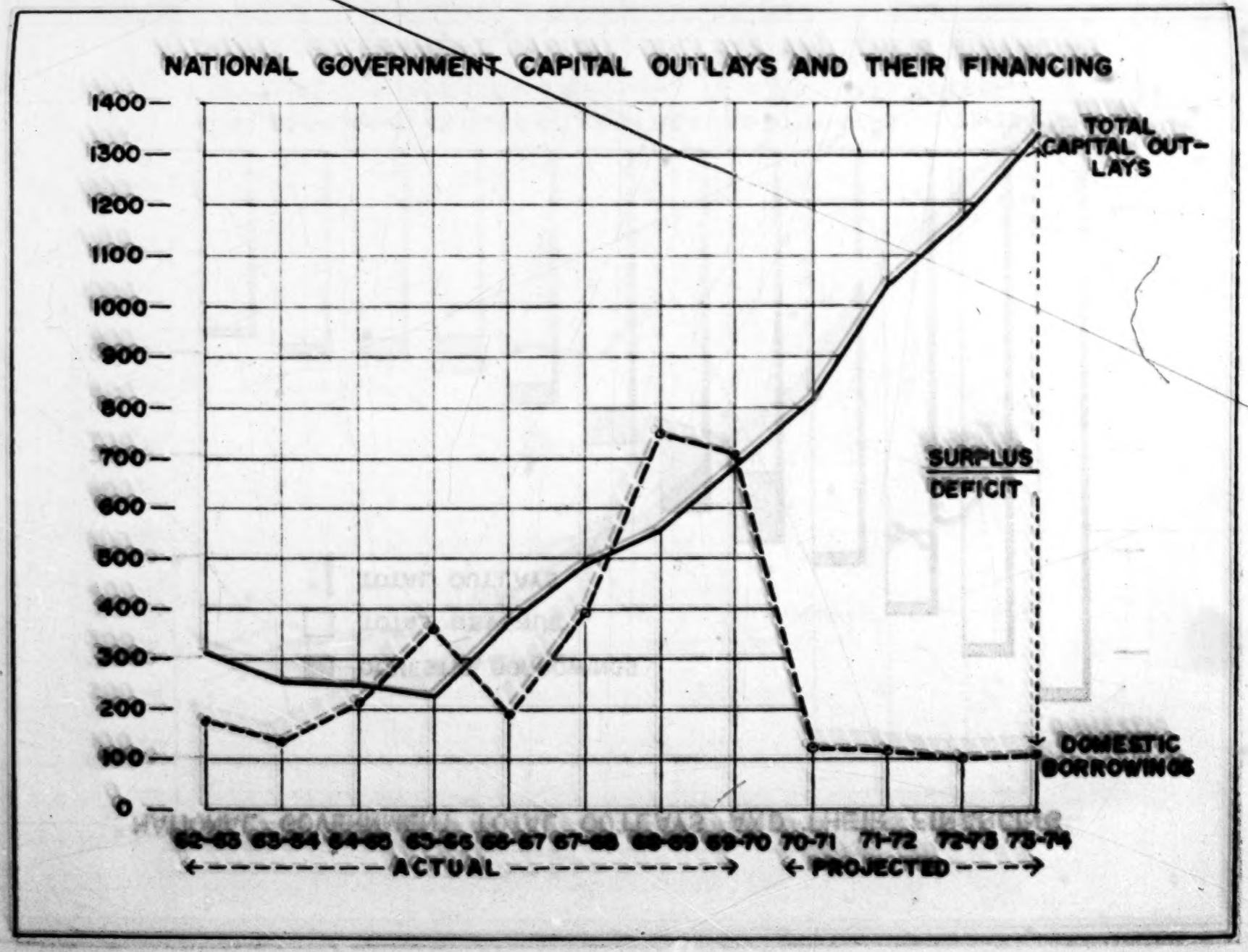
A reconciliation of the budgetary classification with the national accounts, in constant 1967 prices, was made. It should be noted that in constant 1967 prices, the government's consumption expenditures in FY 1971 will be lower by about 5.4 percent than the previous fiscal year and will remain unchanged in FY 1972. Growth in public consumption in FY 1969-FY 1974 is estimated at less than 3 percent annually This will require heroic efforts on the part of government to withstand pressures

for the general upgrading of the wage scales. Revisions in the fiscal plan will be undertaken on an annual basis in order that the Plan estimates will always be consistent with the General Appropriations Act for any year.

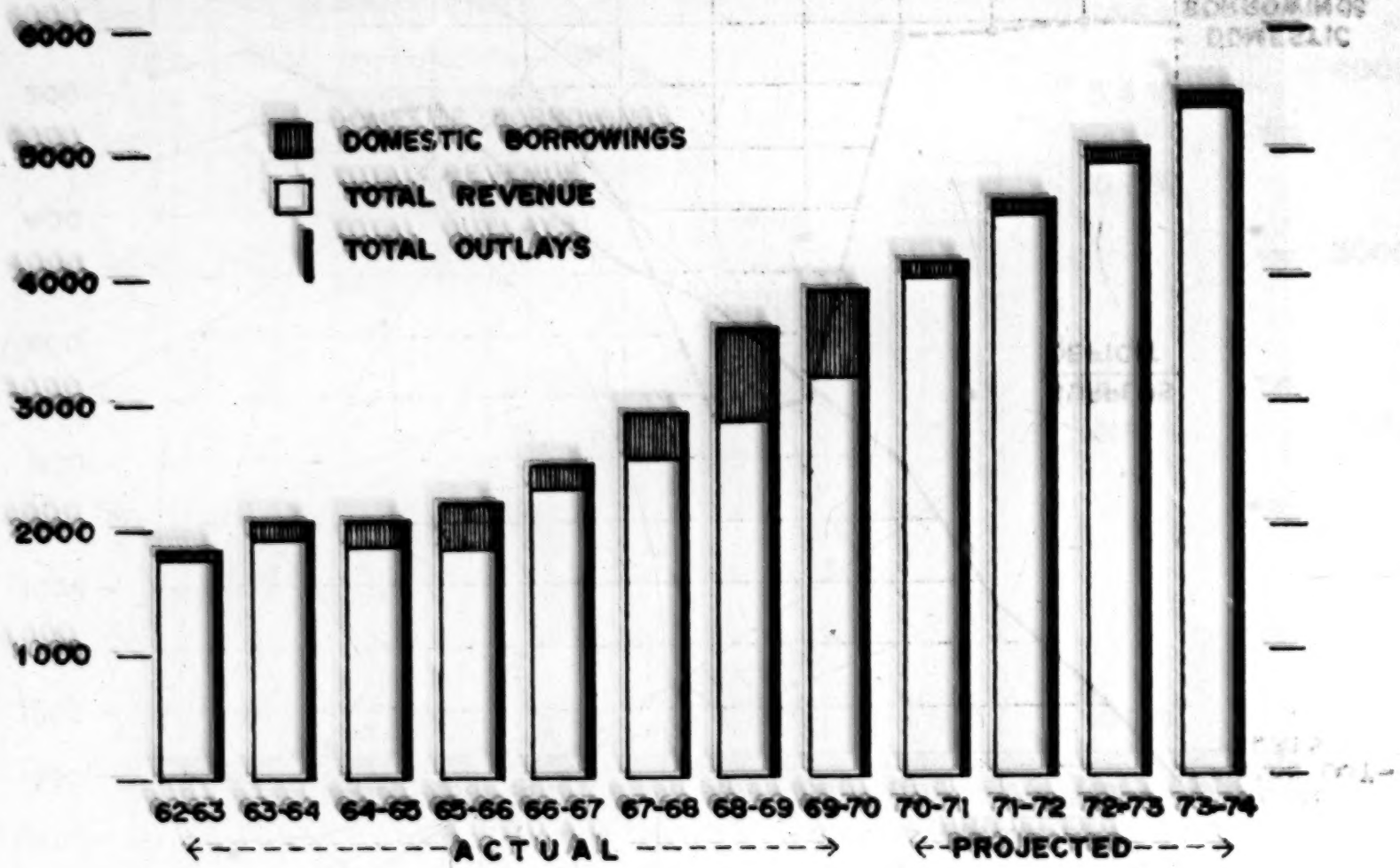
The public sector's requirements and the corresponding financing are summarized below.

	FY 1970	FY 1971	FY 1972	FY 1973	FY 1974
	(In Million Pesos at 1967 Prices)				
Investments	857	938	1,020	1,332	1,348
Gross Transfers	717	593	620	613	639
Requirements	1,574	1,531	1,640	1,945	1,987
Savings	817	1,178	1,197	1,283	1,318
Gross Borrowings					
Domestic	497	82	68	58	59
Foreign	260	271	375	604	610
	1,574	1,531	1,640	1,945	1,987


FOUR-YEAR PUBLIC INVESTMENT PROGRAM
IN MILLION PESOS AT 1967 PRICES
PRELIMINARY ENG'G
SOCIAL INFRASTRUCTURE
TELECOMMUNICATIONS
POWER
TRANSPORTATION
WATER RESOURCES DEVELOPMENT
1500
1000
500
69-70
70-71
71-72
72-73
73-74
4-YEAR TOTAL
1.1 %
24.6 %
5.4 %
10.7 %
41.5 %
16.7 %
4000
3000
2000
1000


NATIONAL GOVERNMENT CAPITAL OUTLAYS AND THEIR FINANCING
1400
1300
1200
1100
1000
900
800
700
600
500
400
300
200
100
0
TOTAL CAPITAL OUT-LAYS
SURPLUS
DEFICIT
DOMESTIC BORROWINGS
62-63 63-64 64-65 65-66 66-67 67-68 68-69 69-70 70-71 71-72 72-73 73-74
ACTUAL
PROJECTED

NATIONAL GOVERNMENT TOTAL OUTLAYS AND THEIR FINANCING



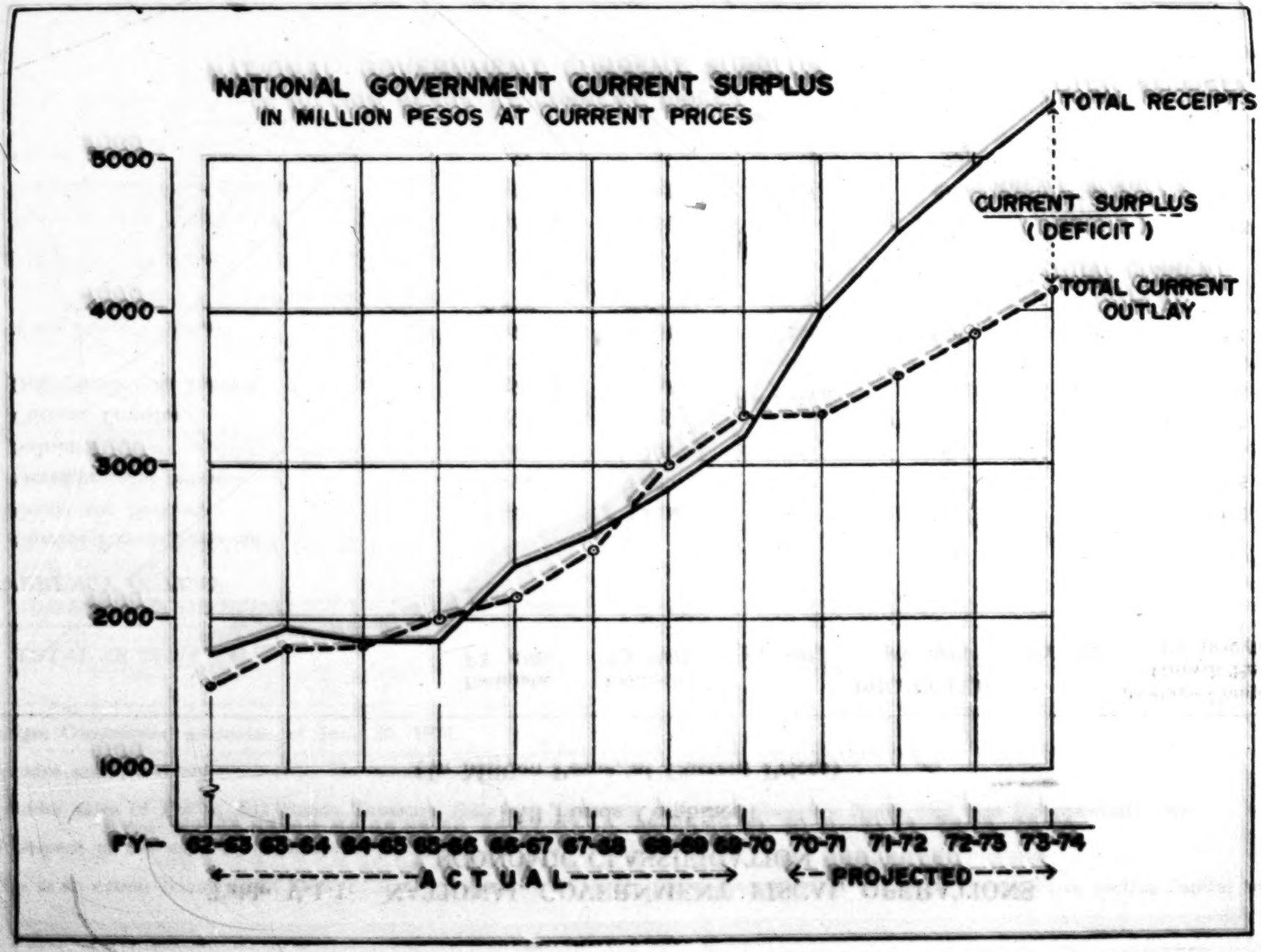

NATIONAL GOVERNMENT CURRENT SURPLUS
IN MILLION PESOS AT CURRENT PRICES
TOTAL RECEIPTS
CURRENT SURPLUS
(DEFICIT)
TOTAL CURRENT
OUTLAY
5000
4000
3000
2000
1000
FY— 62-63 63-64 64-65 65-66 66-67 67-68 68-69 69-70 70-71 71-72 72-73 73-74
← ACTUAL →
← PROJECTED →

Table V-1-1: NATIONAL GOVERNMENT FISCAL OPERATIONS
ECONOMIC CLASSIFICATION
(All Funds Combined)
(In Million Pesos, at Current Prices)

	Estimate[1] FY 1970	Estimate[2] FY 1971	PROJECTED FY 1972	PROJECTED FY 1973	PROJECTED FY 1974	Average Compound Growth Rate FY 1970-74
A. *CURRENCY OUTLAY*						
1. Current Expenditures on Goods and Services	1,367	1,461	1,605	1,687	1,753	6.3
2. Developmental Services	1,293	1,350	1,511	1,654	1,795	8.6
3. Subsidies	165	106	94	80	75	(17.1)
4. Current Transfer	102	120	115	110	105	.7
5. Debt Service & Interest	296	287	255	335	410	8.5
Total Current Outlay	3,223	3,324	3,580	3,866	4,138	6.5
B. *RECEIPTS (All Funds)*						
1. Revenue from Taxation	2,750[3]	3,132	3,458	3,766	4,119	10.5
2. Earnings and other Credits	372	412	466	513	564	10.9
3. Others	77	77	79	79	79	.3
Total Receipts	3,199	3,621	4,003	4,358	4,762	10.5

Table V-I-I (Continued)

	Estimate[1] FY 1970	Estimate[1] FY 1971	PROJECTED FY 1972	PROJECTED FY 1973	PROJECTED FY 1974	Average Compound Growth Rate FY 1970-74
C. *CURRENT SURPLUS*	(24)	297	422	492	624	
D. *CAPITAL OUTLAY*						
1. Gross Capital Formation	552	560	850	995	1,128	19.6
2. Capital Transfer)	131	136				
3. Direct Lending)			195	177	206	12.0
Total Capital Outlay	683	696	1,045	1,172	1,334	18.2
LESS: *CURRENT SURPLUS*	(24)	297	422	492	624	
E. *GROSS FINANCIAL GAP*	707	399	622	680	710	
ADD:						
F. *EXPECTED REVENUES FROM NEW TAXES*	—	381[4]	507	578	603	
G. *DOMESTIC BORROWING*	707[3]	123	115	102	107	(38.0)
H. *TOTAL OUTLAY*	3,906	4,020[5]	4,625	5,038	5,472	9.0

[1] Budget Commission estimates, of June 25, 1970.

[2] Includes additional revenues from tax meagures approved in FY 1969.

[3] Includes sales of PW & ED Bonds Treasury Bills and Treasury Bills and Treasury Notes and also CB overdraft line.

[4] 75 percent of the export tax proceeds will go to the National Government.

[5] This is an excess honorring of P105 million, representing allowance for underestimation of current expenditures and/or capital transfers.

Table V-1-3: NATIONAL GOVERNMENT FISCAL OPERATIONS ECONOMIC-FUNCTIONAL CLASSIFICATION

(All Funds Combined)
(In Million Pesos, at Current Prices)

	Estimate[1] FY 1970	Estimate[1] FY 1971	PROJECTED FY 1972	PROJECTED FY 1973	PROJECTED FY 1974	Average Compound Growth Rate FY 1970-74
1. *ECONOMIC DEVELOPMENT*	1,222	1,232	1,519	1,634	1,762	9.7
Current	663	618	665	665	665	.1
Capital	559	614	854	969	1,097	18.2
2. *SOCIAL DEVELOPMENT*	1,367	1,390	1,675	1,820	1,980	9.7
Current	1,293	1,350	1,511	1,654	1,795	8.6
Capital	74	40	164	166	185	24.0
3. *NATIONAL DEFENSE*	579	580	670	709	750	6.7
Current	572	576	657	692	725	6.1
Capital	7	4	13	17	25	42.0
4. *GENERAL GOVERNMENT*	442	531	506	540	570	6.5
Current	399	493	492	520	543	7.8
Capital	43	38	14	20	26	12.8
5. *DEBT SERVICE*	296	287	255	335	410	15.4
TOTAL EXPENDITURES	3,906	4,020	4,625	5,088	5,472	9.0
TOTAL CURRENT EXPENDITURES	3,223	3,324	3,580	3,866	4,138	6.5
TOTAL CAPITAL EXPENDITURES	683	696	1,045	1,172	1,334	18.2

[1] Budget Commission Estimate, as of June 25, 1970.

Table V-1-3: NATIONAL GOVERNMENT FISCAL OPERATIONS ECONOMIC-FUNCTIONAL CLASSIFICATION
(All Funds Combined)

	Estimate FY 1970	Estimate FY 1971	PROJECTED FY 1972	PROJECTED FY 1973	PROJECTED FY 1974	Average Compound Growth Rate FY 1970-74
I. *CURRENT EXPENDITURES*						
1. *ECONOMIC DEVELOPMENT*	668	618	665	665	665	0.1
Agriculture & Natural Resources	189	194	203	203	203	1.8
Transportation & Communication	228	225	241	241	241	1.4
Commerce and Industry	80	58	88	88	88	2.4
Other Economic Development	166	141	133	133	133	—
2. *SOCIAL DEVELOPMENT*	1,293	1,350	1,511	1,654	1,795	8.6
Education	1,061	1,096	1,203	1,306	1,400	7.1
Public Health & Medical Care	184	197	238	278	315	14.3
Labor and Welfare	48	58	60	70	80	14.8
3. *NATIONAL DEFENSE*	572	576	657	709	750	7.0
National Defense	414	394	462	493	510	5.4
Maintenance of Peace & Order	158	182	195	216	240	11.0
4. *GENERAL GOVERNMENT*	399	498	506	540	570	9.1
General Government	265	320	305	335	360	7.8
Legislative Services	37	57	40	40	40	2.0
Administration of Justice	67	96	121	125	130	18.0
Pensions and Gratuities	30	29	40	40	40	5.7
5. *DEBT SERVICE*	296	287	255	335	410	8.5
TOTAL CURRENT EXPENDITURES	3,223	3,324	3,580	3,866	4,138	6.5

Table V-1-3 (Continued)

	Estimate FY 1970	Estimate FY 1971	PROJECTED FY 1972	PROJECTED FY 1973	PROJECTED FY 1974	Average Compound Growth Rate FY 1970-74
II. *RECEIPTS (All Funds)*						
1. REVENUE FROM TAXATION	2,750	3,132	3,458	3,766	4,119	10.5
2. EARNINGS AND OTHER CREDITS	372	412	466	513	564	10.9
3. OTHERS	77	77	79	79	79	.1
TOTAL RECEIPTS	3,199	3,621	4,003	4,358	4,762	10.5
LESS: TOTAL CURRENT EXPENDITURES	3,223	3,324	3,580	3,866	4,138	6.5
III. *CURRENT SURPLUS*	(24)	297	423	492	624	—
IV. *CAPITAL EXPENDITURES*						
1. *ECONOMIC DEVELOPMENT*	559	614	854	969	1,097	18.3
Agriculture and Natural Resources	95	162	177	200	260	28.0
Transportation and Communication	366	347	420	511	645	15.2
Commerce and Industry	15	20	81	100	94	55.0
Other Economic Development	83	85	176	158	98	4.3
2. *SOCIAL DEVELOPMENT*	74	40	164	166	185	24.0
Education	43	20	113	115	125	30.0
Public Health & Medical Care	27	20	31	31	35	6.7
Labor and Welfare	4	—	20	20	25	37.0

Table V-1-3 (Continued)

	Estimate FY 1970	Estimate FY 1971	PROJECTED FY 1972	PROJECTED FY 1973	PROJECTED FY 1974	Average Compound Growth Rate FY 1970-74
3. *NATIONAL DEFENSE*	7	4	13	17	25	43.0
National Defense	6	4	12	15	20	41.0
Maintenance of Peace and Order	1	—	1	2	5	49.0
4. *GENERAL GOVERNMENT*	43	38	14	20	26	—
General Government	43	38	12	15	19	—
Legislative Services	—	—	1	2	3	—
Administration of Justice	—	—	1	3	4	—
TOTAL CAPITAL EXPENDITURES	683	696	1,045	1,172	1,334	18.2
LESS: CURRENT SURPLUS	(24)	297	423	492	627	60.0
V. *GROSS FINANCIAL GAP*	707	399	622	680	710	9.2
ADD:						
VI. *EXPECTED REVENUES FROM NEW TAXES*	—	381	507	578	603	—
VII. *DOMESTIC BORROWING*	707	123	116	102	107	(38.0)
TOTAL EXPENDITURES	3,906	4,020	4,625	5,038	5,472	9.2

Table V-1-4: NATIONAL GOVERNMENT FISCAL OPERATIONS
EXPENDITURES BY FUND
(In Million Pesos, at Current Prices)

	Estimate[1] FY 1970	Estimate[1] FY 1971	PROJECTED FY 1972	PROJECTED FY 1973	PROJECTED FY 1974	Growth Rate FY 1970-74 Average Compound
1. *GENERAL FUND*	3,252	3,231	3,738	4,087	4,408	7.8
Current	2,853	2,857	3,054	3,288	3,502	5.3
Capital	399	374	684	799	906	22.5
2. *SPECIAL FUNDS*	491	605	687	763	870	15.3
Current	309	406	456	507	564	16.2
Capital	182	199	231	256	306	13.8
3. *FIDUCIARY FUNDS*	58	59	60	61	62	1.6
Current	58	59	60	61	62	1.6
Capital	—	—	—	—	—	—
4. *REPARATIONS FUND*	3	2	25	25	25	70.0
Current	2	2	10	10	10	49.0
Capital	1	—	15	15	15	95.0

[1] Budget Commission Estimate, as of June 25, 1970

Table V-1-4: (Continued)

SOURCES[1]	Estimate FY 1970	Estimate FY 1971	PROJECTED FY 1972	PROJECTED FY 1973	PROJECTED FY 1974	Growth Rate FY 1970-74 Average Compound
5. *BOND FUND*	102	123	115	102	107	—
Current	—	—	—	—	—	—
Capital	102	123	115	102	107	—
TOTAL EXPENDITURES	3,906	4,020	4,625	5,038	5,472	9.0
TOTAL CURRENT EXPENDITURES	3,223	3,324	3,580	3,866	4,138	6.5
TOTAL CAPITAL EXPENDITURES	683	696	1,045	1,172	1,334	18.2
SOURCES[1]						
1 *GENERAL FUND*	3,252	3,331	3,738	4,087	4,408	7.8
BIR	1,524	1,700	1,954	2,207	2,412	12.3
Bureau of Customs	963	1,434	1,584	1,675	1,786	16.5
Others	195	197	200	205	210	1.9
Borrowings	570	—	—	—	—	—
2. *SPECIAL FUNDS*	491	611	687	773	870	15.3
3. *FIDUCIARY FUNDS*	58	59	60	61	62	1.6
4. *REPARATIONS FUND*	3	2	25	25	25	70.0
5. *BOND FUND*	102	123	115	102	107	—
TOTAL	3,906	4,126	4,625	5,038	5,472	9.0

[1] Net of interfund transfers.

Table V-1-5: LOCAL GOVERNMENT FISCAL OPERATIONS
ECONOMIC CLASSIFICATION
(In Million Pesos, at Current Prices)

	ESTIMATE		PROJECTED			Average Compound Growth Rate
	FY 1970	FY 1971	FY 1972	FY 1973	FY 1974	FY 1970-74
A. *CURRENT OUTLAY*						
1. Current Expenditures on Goods and Services	775	852	993	1,095	1,211	11.8
2. Current Transfer	28	40	38	43	49	15.0
3. Debt Interest	7	8	8	8	8	3.4
Total Current Outlay	810	900	1,039	1,146	1,268	11.8
B. *RECEIPTS*						
1. Revenue from Taxation	668	810	899	993	1,078	12.7
2. Incidental Revenue	64	74	85	95	105	13.2
3. Receipts from Public Utilities	84	97	112	125	140	13.6
4. Other Receipts	167	185	213	218	240	9.5
Total Receipts	983	1,166	1,309	1,431	1,563	12.3
LESS: Total Current Outlay	810	900	1,039	1,146	1,268	11.8
C. *CURRENT SURPLUS*	173	266	270	285	295	14.3
D. *CAPITAL OUTLAY*						
1. Gross Capital Formation	164	255	259	272	282	14.5

Table V-1-5: (Continued)

2. Capital Transfer)						
3. Direct Lending)	9	11	12	13	14	11.6
Total Capital Outlay	173	266	270	285	295	14.3
LESS: Current Surplus	173	266	270	285	295	14.3
E. *TOTAL EXPENDITURES*	983	1,166	1,309	1,431	1,564	12.3

LOCAL GOVERNMENT FISCAL OPERATIONS
FUNCTIONAL CLASSIFICATION
(In Million Pesos at Current Prices)

	ESTIMATE		PROJECTED			Average Compound Growth Rate
	FY 1970	FY 1971	FY 1973	FY 1973	FY 1974	FY 1970-74
1. GENERAL GOVERNMENT	210	233	262	290	320	11.1
2. SOCIAL DEVELOPMENT	235	268	300	340	375	12.4
3. ECONOMIC DEVELOPMENT	386	440	506	560	617	12.5
4. PROTECTIVE SERVICES	152	211	220	225	235	11.5
5. DEBT SERVICE	13	14	15	16	17	7.0
TOTAL EXPENDITURES	983	1,166	1,309	1,431	1,564	12.3

Table V-1-6: NATIONAL GOVERNMENT FISCAL OPERATIONS—PROJECTED REVENUES FROM NEW TAX PROPOSALS

(In Million Pesos, at Current Prices)

TAX PROPOSALS	PROJECTED			
	FY 1971	FY 1972	FY 1973	FY 1974
1. Export Tax	381	320	273	182
2. Percentage Tax on securities transactions		57	66	75
3. Increase in the rate of the specific tax on	—	130	138	147
a. Gasoline		119	126	134
b. Lubricating Oil		2	2	2
c. Diesel Fuel Oil		9	10	11
4. Increase in the rate of import duty on articles classified as "Others"			101	106
5. Legalizing Gambling				22
6. Imposition of a minimal duty of 5% on exempt items				21
7. Withdrawal of tax exemptions				
8. Increase in forest and quarry charges				
9. Increase in travel tax				
10. Additional Taxes on Winnings				
11. Tax on luxurious residential buildings (houses with construction cost of ₱50,000 or more)				50
12. Abolition of the Tobacco subsidy				
13. Withdrawal of assistance to certain gold producers				
14. Increase in social security contribution (for the employer — from 3 1/2 to 5 per cent) and increase in the compulsory coverage) from ₱500 a month earnings to ₱1,000 a month				
Total	381	507	578	603

Notes to Table V-1-1 to V-1-4

Fiscal Operations: Assumptions & Methodology

1. Economic Classification (Table V-1-1)

Current Expenditures

Current expenditures on goods and services are projected to grow by 6.3 percent annually. Although this is considerably lower than the historical growth rate of 16 percent from FY 1962-69, this is considered necessary so that resources can be channelled to other types of current expenditures, e.g., developmental services. The reduction in the rate of spending for current expenditures on goods and services will require policy support.

Development services are projected to grow faster than current expenditures on goods and services because the former basically supplement economic services. The growth rate for developmental services is placed at 8.6 percent every year.

Subsidies are projected to decline in view of the following: (a) the proposed government reorganization will result in improved efficiency of existing government corporations and agencies, and (b) as a matter of general economic policy, the government will reduce subsidies so that more resources will be channelled to more productive projects.

Current transfers will be declining both in absolute terms after FY 1971 since pensions, retirement pay and gratuities will increasingly be smaller.

Debt service and interest will increase due to rising levels of internal and external borrowings and also due to the effects of the adjustment in the exchange rates.

Total current outlay will be growing at a slower rate compared to the growth rate experienced during the preceding years. This will be made possible through a reduction in the rate of growth of expenditures in subsidies and transfers. In real terms, however, there will be no growth in current outlay in FY 1971 compared to FY 1970. Expenditures are allowed to increase thereafter.

Receipts

The projection for **revenue from taxation** was arrived at after correlating it with the GNP growth rate. A realistic increase in collection efficiency has also been taken into account. The increase in efficiency is likely to average about 7 percent every year.

Capital Expenditures

Gross capital formation was derived from the financial program of the operating agencies, as compiled by Infrastructure Operations Center (IOC).

The estimates have been based on projects for implementation. Only the peso requirements are included in the budget.

Capital transfers and direct lending represent payments made to retire outstanding obligations, to write off other loans and costs of investments in stocks, bonds or other equities of government owned or controlled corporations. Such payments include purchases of landed estates for resale to small farmers, purchases of railroad lines, and also outlays for resettlement programs. These are projected to grow by 12 percent yearly.

Total expenditures are expected to increase by 9.2 percent annually. Although the growth rate is slightly lower than the historical growth rate of 11.5 percent, this is considered feasible. Furthermore, the growth rate is somewhat slowed down by the fiscal restraint to be undertaken in FY 1971.

2. Functional Classificatiotn (Table V-1-2)

Since the emphasis of the fiscal sector program is on social and economic development, the growth rates and percentage shares of these items are the fastest and the largest. Economic development expenditures and social development expenditures are both expected to grow by 9.7 percent annually. The rest, with the exception of debt service, will grow at a slower rate.

The precentage share of economic development in total expenditures will average 32.1 percent during the program period; that of social development, 35.8 percent.

3. Expenditures by Fund and Sources of Funds (Table V-1-4)

General Fund expenditures will increase by 7.8 percent every year. Significantly, general fund contributions to financing capital outlays will be on the uptrend in line with the policy of channelling more resources to capital outlay. The share of the General Fund to total expenditures will be about 80.7 percent during the Plan period.

Most of the General Fund revenues will come from the Bureau of Internal Revenue collections. The share of BIR collections to total General Fund revenues will average approximately 53 percent. Bureau of Customs revenues will comprise another 42 percent and the 5 percent balance will come from collections of other government agencies.

BIR collections are anticipated to increase by 12.3 percent annually. This is feasible considering that the BIR has already instituted reforms in tax administration. Presently, the BIR is undertaking the following tasks:

(a) Improvement in the quality of assessment work;

(b) Development of a balance audit program;

(c) Establishment of a well-organized and efficient system of collection that will reduce the delinquent accounts and maintain them at that level; and

(d) Development of a master file of both taxpayers and persons who appear to be potential taxpayers.

The BIR is conducting at present a training program for its collection agents. The training includes lectures on internal revenue laws; filing of returns; computation of taxes, interest and surcharges. All of these are designed to improve tax collection efficiency.

In addition, legislative proposals have been filed to improve tax administration. Examples of these are:

(a) An Act amending Section 261 of the Tax Code — Although registered charitable institutions are entitled to a 50 percent exemption from the payment of amusement taxes, this exemption has often been abused. Promoters often connive with charitable institutions by conducting shows allegedly for charity but actually the bulk of the proceeds go to the promoters. The purpose of this bill is to minimize tax evasion and to limit the number of benefit shows. Also the duration of such shows must be provided for in the law;

(b) An Act amending Section 6, Chapter II, Article I of R.A. No. 1603, otherwise known as the Land Transportation and Traffic Code — The purpose of this bill is to require the submission of the clearance of tax receipts by operators of common carriers and transportation contractors to present proof of payment of taxes.

The Bureau of Customs has adopted some policies and other measures in order to increase tax revenue. These are as follows:

(a) **Inventory of overstaying cargoes in the Customs Bonded Warehouses with the end in view of selling them as abandoned goods.** In line with this policy, the Acting Commissioner of Customs recently arranged for the immediate sale at public auction of some ₱50 million worth of overstaying cargoes scattered in 105 Customs Bonded Warehouses.

(b) **Across the board adjustment of the appraisal of imported items.** Although the probable revenue effect of this policy has not yet been quantified, it is expected that such adjustment would bring in a sizeable amount of income.

(c) **Issuance of regulations to standardize valuation and the classification of merchandise.** This hopes to correct the existing hazy Customs valuation procedures.

(d) **Creation of a Committee delegated with the function of canvassing local wholesale market values of imported items to determine their approximate export values.** This is in line with the proper valuation of imports.

Special Fund expenditures will also grow at a relatively faster rate than the General Fund. These are special funds that have recently been created such as the Special Education Fund and the Science Fund. Contributions from these Funds are likely to reach ₱80.90 million during the Plan period.

Contributions from the Fiduciary Funds and Reparations Fund will not be substantial. For Fiduciary Funds, these will average ₱61-62 million yearly. For Reparations Fund, these will increase from ₱2 million in FY 1971 to ₱25 million in FY 1974.

Section V — Chapter 2

FINANCING THE PRIVATE INVESTMENTS

1. Investment-Savings Balance

Of the gross domestic investment total of ₱28,196 million planned for FY 1971-FY 1974, the share of the private sector constitutes ₱23,558 million or 83.5 percent of the total. Private investment is expected to rise from a level of ₱5,263 million in FY 1970 to ₱6,349 million by FY 1974, representing an annual growth of 4.8 percent.

Total private savings are estimated to grow by about 6.4 percent annually, from ₱4,299 million in FY 1970 to ₱5,767 million in FY 1974. Over the Plan period, private savings are expected to total ₱20,416 million.

Comparing investments and savings, there will be a gap of ₱3,142 million to be financed by external sources.

2. Sources of Financing

The over-all projected financing of private investment is as follows:

	FY 1971-1974 (In Billion ₱)	(%)
Investment Requirements	₱23.56	100.0%
Financed by:		
a) Inflow from Abroad	3.14	13.3
b) National Savings	20.42	86.7
Government Financial Institutions (DBP, SSS, GSIS)	1.99	8.5
Private Commercial Banks (including PNB)	2.40	10.2
Other Financial Intermediaries (Insurance companies, investment banks, mutual building & loan association, etc.)	1.60	6.8
Corporate Savings	3.40	14.4
Non-Institutionalized Personal Savings	11.03	46.8

The structure of financing presented above involves no radical departure from the past, except perhaps the lower dependence on external sources. The contribution of the government financial intermediaries, as shown in Table V-2-1, is understated in view of the indirect lending operations in the form of guarantees of foreign obligations.

The market for financial instruments should be developed to the fullest extent if savings are to be channelled into priority investments. The past tendency of individual savings, in the form of financial claims (bank deposits, life insurance and retirement funds, etc.), to rise in proportion to total household savings, will call for greater participation of the financial institutions in channelling these savings into productive enterprises.

Notes to Table V-2-1

General Procedures and Assumptions Used in Consolidating the Projected Cash Flows of the DBP, GSIS and SSS for the Fiscal Years 1971-74

1. The consolidation was prepared on the basis of cash flow statements submitted by each institution. Only that for the SSS required adjustments to convert the figures from a calendar to a fiscal year basis.

2. Intra-sectoral (between themselves) changes or transactions were first dovetailed. Much, if not all of these, is a one way flow, with DBP selling bonds to or receiving time deposits from, the other two. DBP's assumption was that all existing debt, both bonds and time deposits, would be renewed at maturities. Projections of both GSIS and SSS on the other hand assume collection on the bonds at maturity. Generously, the SSS itself projected renewal of its time deposits with the DBP every year over the next four years, this tallying with DBP assumptions. Faced as it is with a fund problem, the DBP can probably prevail on the oother two to follow its assumptions on reissuance of bonds as they mature. As such, this constituted the first step in adjusting the accounts, i.e. getting the GSIS and SSS flows to follow DBP assumptions.

The extent of these (bond redemption) inflows to be "given up" by these institutions is reflected below:

	FY 1971 (1970-71)	FY 1972	FY 1973	FY 1974
GSIS	16.7	7.7	1.7	
SSS*	7.2	3.6	4.2	1.8

*Adjusted according to assumptions made in SSS cash flows.

3. DBP's projections indicate negative cash balances at the beginning of the second and third years, i.e., FY's 1972 and 73, arising principally from heavy advances on guarantees amounting to ₱312.2 million and heavy servicing of foreign debts, even on generous assumptions on roll-over of some of these. The GSIS and SSS are not similarly ill-placed. GSIS maintained opening cash balances by making stock and bond investments a residual category. SSS had indicative figures for this item and built up cash. Both then were adjusted so that opening cash balances were maintained and investments in stocks, bonds, and government securities made the residual category. The second step therefore involved tapping these institutions for funds to support both the DBP and the National Government.

4. Even with these inflows from the other two institutions, the DBP would still find itself in deficit in the first and second years. Inflows and outflows were brought into balance by reducing industrial loan releases from ₱747 million to ₱157.8 million in FY 1971 and to ₱288.1 million in FY 1972.

   Maintaining equality in inflows and outflows (and these opening balances) permits DBP to increase its programmed industrial lending in the last two years of the period.

Table V-2-1: CONSOLIDATED CASH FLOW STATEMENT OF THE DBP, GSIS AND SSS

Fiscal Years 1971-74

(In Millions of Pesos at Current Prices)

INFLOWS	Fiscal Year 1971 (1970-71)				Fiscal Year 1972			
	DBP	GSIS	SSS	TOTAL	DBP	GSIS	SSS	TOTAL
Beginning Cash Balances	68.1	43.0	16.1	127.2	68.1	43.0	16.1	127.2
Inflows								
1. Income/Revenues	50.0	393.0	241.5	684.5	51.0	398.0	267.8	716.8
2. Collections on Loans	304.3	286.0	73.0	663.3	432.1	290.0	80.0	802.1
3. Liquidation of Investments	1.0	3.3	2.8	7.1	1.5	10.3	4.2	16.0
4. Borrowings (net liab.-incr.)	127.3	—	—	127.3	35.0	—	—	35.0
A. Domestic	21.8	—	—	21.8	35.0	—	—	35.0
B. Foreign	105.5	—	—	105.5	—	—	—	—
5. Other Collectibles (net)	9.6	35.0	—	44.6	10.0	36.0	—	46.0
6. Other Sources/Receipts	199.3	37.0	—	236.3	178.8	33.0	—	211.8
1. Export Tax	189.2	—	—	189.2	168.8	—	—	168.8
2. Others	10.1	37.0	—	47.1	10.0	33.0	—	43.0
TOTAL INFLOWS	691.5	754.3	311.3	1,763.1	708.4	767.3	352.0	1,827.7
TOTAL AVAILABLE FUNDS	759.6	797.3	333.4	1,890.3	776.5	810.3	368.1	1,843.4

Table V-2-1 (Continued)

OUTFLOWS	Fiscal Year 1971				Fiscal Year 1972			
	DBP	GSIS	SSS	TOTAL	DBP	GSIS	SSS	TOTAL
Outflows								
Operational disbursements & mandatory outflows	44.1	288.0	76.6	408.7	42.9	291.0	85.2	419.1
1. Salaries, wages, taxes, divs., etc.	20.8	74.0	23.9	118.7	23.3	75.0	25.4	123.7
2. Claims and benefit payments	—	142.0	52.7	194.7	—	144.0	59.8	203.8
3. Others	23.3	72.0	—	95.3	19.6	72.0	—	91.6
Releases on loans	580.8	294.5	166.8	1,042.1	503.9	350.0	215.4	1.069.3
1. Service feature loans	—	178.0	59.0	237.0	—	180.0	65.0	245.0
2. Agricultural	83.2	—	—	83.2	83.1	—	—	83.1
3. Industrial	157.8	—	24.5	182.3	288.1	—	25.0	323.1
4. Real estate*	12.5	116.5	67.5	196.5	10.0	170.0	111.0	291.0
5. Other loans	15.0	—	15.8	30.8	14.0	—	14.4	28.4
6. Advances on guarantees	312.3	—	—	312.3	108.7	—	—	108.7
Investment building (asset net incr.)	12.0	101.8	73.9	187.7	32.0	56.3	51.4	139.7
1. Stocks	12.0	—	8.9	20.9	12.0	1.3	1.4	14.7
2. Bonds	—	13.3	—	13.3	—	15.0	—	15.0
3. Government securities	—	88.5	61.5	150.0	20.0	40.0	40.0	100.0
4. Time and savings deposits	—	—	3.5	3.5	—	—	10.0	10.0
Repayment of borrowings (net liab. reductions)	53.5	—	—	53.5	128.4	—	—	128.4
A. Domestic	53.5	—	—	20.5	35.5	—	—	35.5
PNB notes payable	20.5	—	—	8.7	—	—	—	—
PNB rice and corn credit line	8.7	—	—	24.8	—	—	—	—
Commercial Banks	24.8	—	—	—	35.5	—	—	35.5
B. Foreign	—	—	—	24.8	92.9	—	—	92.9
Other payables	1.1	70.0	—	71.1	1.2	70.0	—	71.2
TOTAL OUTFLOWS	691.5	754.3	317.3	1,736.1	708.4	767.3	352.0	1,827.7
ENDING CASH BALANCE	68.1	43.0	16.1	127.2	68.1	43.0	16.1	127.2

*Inclusive of housing projects

Table V-2-1 (Continued)

INFLOWS	Fiscal Year 1973				Fiscal Year 1974				TOTAL FY 1971-74
	DBP	GSIS	SSS	TOTAL	DBP	GSIS	SSS	TOTAL	
Beginning Cash Balances	68.1	43.0	16.1	127.2	68.1	43.0	16.1	127.3	127.2
Inflows									
1. Income/Revenues	59.0	402.0	295.0	756.0	70.0	412.0	323.4	805.4	2,962.7
2. Collections on Loans	439.4	292.0	86.5	817.9	458.7	297.0	93.0	848.7	3,132.0
3. Liquidation of Investments	6.7	16.3	2.9	25.9	14.7	14.0	3.0	31.7	80.7
4. Borrowings (net liab.-incr.)	10.0	—	—	10.0	10.0	—	—	10.0	182.3
A. Domestic	10.0	—	—	10.0	10.0	—	—	10.0	76.8
B. Foreign	—	—	—	—	—	—	—	—	105.0
5. Other Collectibles (net)	10.4	36.0	—	46.4	10.9	38.0	—	48.9	185.9
6. Other Sources/Receipts	155.4	31.0	—	186.4	127.8	28.0	—	155.8	790.3
1. Export Tax	145.4	—	—	145.4	117.8	—	—	117.8	621.2
2. Others	10.0	31.0	—	41.0	10.0	28.0	—	38.0	169.1
TOTAL INFLOWS	680.9	777.3	384.4	1,842.6	692.1	789.0	419.4	1,900.5	7,333.9
TOTAL AVAILABLE FUNDS	749.0	820.3	400.5	1,969.8	760.2	832.0	435.5	2,027.7	7,461.1

Table V-2-1 (Continued)

OUTFLOWS	Fiscal Year 1973				Fiscal Year 1974				TOTAL FY 1971-74
	DBP	GSIS	SSS	TOTAL	DBP	GSIS	SSS	TOTAL	
Outflows									
Operational disbursements & mandatory outflows	39.1	295.0	94.3	428.4	41.9	295.0	103.3	440.2	1,696.4
1. Salaries, wages, taxes, divs., etc.	23.6	77.0	26.5	127.1	26.4	77.0	27.4	130.8	500.3
2. Claims and benefit payments	—	145.0	67.8	212.8	—	145.0	75.9	220.9	832.2
3. Others	15.5	73.0	—	88.5	15.5	73.0	—	88.5	363.9
Releases on loans	515.2	370.0	228.4	1,113.6	592.7	378.0	218.4	1,189.1	4,414.1
1. Service feature loans	—	195.0	69.5	264.5	—	201.0	74.3	275.0	1,021.5
2. Agricultural	83.6	—	—	83.6	80.3	—	—	80.3	330.2
3. Industrial	294.3	—	25.0	319.3	391.9	—	25.0	416.9	1,241.6
4. Real estate*	10.0	175.0	119.5	304.5	10.0	177.0	105.0	283.0	1,075.0
5. Other loans	14.0	—	14.4	28.4	14.0	—	14.4	28.4	116.0
6. Advances on guarantees	113.3	—	—	113.3	96.5	—	—	96.5	630.0
Investment building (asset net incr.)	20.0	42.3	61.7	124.0	20.0	46.0	97.7	163.7	615.1
1. Stocks	—	2.3	11.7	14.0	—	6.0	22.7	28.7	78.3
2. Bonds	—	—	—	—	—	—	—	—	28.3
3. Government securities	20.0	40.0	40.0	100.0	20.0	40.0	40.0	100.00	5,450.0
4. Time and savings deposits	—	—	10.0	10.0	—	—	35.0	35.0	58.5
Repayment of borrowings (net liab. reductions)	105.3	—	—	105.3	36.1	—	—	36.1	323.3
A. Domestic	11.3	—	—	11.3	—	—	—	—	100.3
PNB notes payable	—	—	—	—	—	—	—	—	20.5
PNB rice and corn credit line	—	—	—	—	—	—	—	—	8.7
Commercial banks	11.3	—	—	11.3	—	—	—	—	71.6
B. Foreign	94.0	—	—	94.0	36.1	—	—	36.1	223.0
Other payables	1.3	70.0	—	71.3	1.4	70.0	—	71.4	285.0
TOTAL OUTFLOWS	680.9	777.3	384.4	1,842.6	692.1	789.0	419.4	1,900.5	7,333.9
ENDING CASH BALANCE	68.1	43.0	16.1	127.2	68.1	43.0	16.1	127.2	127.2

*Inclusive of housing projects

SECTION VI

PLAN IMPLEMENTATION

Administrative Requirements for Development

Section VI

ADMINISTRATIVE REQUIREMENTS FOR DEVELOPMENT

To meet the present need for accelerated economic growth the administrative machinery will be reoriented towards giving emphasis on development in government programs, particularly with regard to the structures for economic planning and program execution. These structures will be reorganized in order to provide a broad organizational framework for effective development and formulation of economic plans and goals, including related economic policies and guidelines; effective integration of sectoral and regional development plans; coordinated implementation of action programs; and a responsive statistical system to support economic planning and evalution of program execution.

For this purpose, the following administrative requirements are proposed to be fulfilled:

(1) As head of the Executive Department, the President has overall responsibility for planning and executing government programs. Recognizing, however, that economic development is also a political responsibility, provision will be made for the President to obtain in this respect the counsel and advice of the Legislative Branch through a consultative body, composed jointly of top executive and legislative leaders.

(2) The substantive function of program planning and coordination of implementation may be more effectively vested in a compact multi-headed body composed of cabinet-rank officials directly concerned with formulating and executing sectoral development activities, such as those in commerce and industry, agriculture, budget and finance, public works, transportation and communications. Specifically, this cabinet-level body will advise the legislative-executive high council on economic matters; formulate consistent development programs to guide all government activities and so allocate resources; coordinate national economic policies by integrating sectoral and regional objectives, priorities and programs into a set of general development goals; evaluate effectiveness of current programs and projects; and, accordingly, reorient goals, objectives and resource allocation for optimal results.

(3) Necessarily, a professional and career-level technical staff to service the preceeding bodies by way of technical and staff assistance will be constituted. It will be so organized and

staffed as to have the necessary competence and capability to undertake all staff work, research and study related to coordinating and integrating sectoral and regional plans and programs; and evaluating progress in implementation. The functions of the proposed technical staff will, among others, result from the fusion and integration of agencies and *ad hoc* bodies presently involved in economic planning and coornation of program implementation. Experience in the past, with attempts at some sort of loose coordination of the various agencies, does not make for optimism.

(4) Apart from establishing the necessary agent structures and organizations for line action that are geared towards program implementation, each major executive department will also be provided with the means to develop a sectoral plan of action, with the corresponding implementing projects, in line with the national plan outlined and approved by the central planning body. This may be done by creating departmental plans-and-programs units which will likewise have the capability for evaluating sectoral development progress and project performance.

(5) To complement sectoral planning activities, and provide greater impetus to balancing development progress between regions, the process of regional planning, which is at present nebulous if not non-existent, will be institutionalized and likewise tied up to the mainstream of development planning. Such institutionalization may take the form of regional planning bodies which would deal with comprehensive studies and plans, and would set up priority schedules for regional development; and regional development agencies which would deal with the promotion and acceleration of regional industrial development, and, where it can, the implementation of certain industrial projects.

(6) Like any other undertaking, development planning and program implementation will be carried out on the basis of existing needs, growth potential, available resources, as well as actual performance. Hence, an effective statistical system for measuring and evaluating these factors will be incorporated within the administrative structure. There will, however, be more effective coordination of the statistical operations of the various governmental agencies in order to avoid possible duplications, conflicts and other pitfalls of an essentially decentralized system. The coordination function will remain with the central planning body so that statistical activities will meet planning requirements.

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OVERALL CHAIRMAN

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Roberto Sigua	Presidential Economic Staff
Aurora M. Tolentino	Bancom Development Corporation

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NOTE: Creation of the Inter-Departmental Committee was authorized by Memorandum Circular No. 322, Office of the President, dated February 26, 1970, as amended.

GLOSSARY OF ABBREVIATIONS

ACA	— Agricultural Credit Administration
ADB	— Asian Development Bank
AID	— Agency for International Development
AFP	— Armed Forces of the Philippines
AGLF	— Agricultural Guarantee Loan Fund
APC	— Agricultural Productivity Commission
BAI	— Bureau of Animal Industry
BCS	— Bureau of Census and Statistics
BIR	— Bureau of Internal Revenue
BOI	— Board of Investments
BPI	— Bureau of Plant Industry
BPW	— Bureau of Public Works
BS	— Bureau of Soils
CAA	— Civil Aeronautics Administration
CAO	— Cooperative Administration Office
CB	— Central Bank
CCIR	— Consultative Committee for International Radio
CCITT	— Consultative Committee for International Telephone and Telegraph
CEDA	— Communications and Electricity Development Authority of Cavite
DANR	— Department of Agriculture and Natural Resources
DBP	— Development Bank of the Philippines
DPWC	— Department of Public Works and Communications
EA	— Electrification Administration
FACOMA	— Farmer's Cooperative Marketing Association
FAO	— Food Agricultural Organization
GATT	— General Agreement on Trade and Tariffs
GMTFM	— Greater Manila Terminal Food Market
GSIS	— Government Service Insurance System
HFC	— Home Financing Commission
IBRD	— International Bank for Reconstruction and Development
IFC	— International Finance Corporation
IMF	— International Monetary Fund

GLOSSARY OF ABBREVIATIONS

INH	— Institute of National Health
IOC	— Infrastructure Operations Center
IPP	— Investment Priorities Plan
IRRI	— International Rice Research Institute
ISU	— Irrigation Service Unit
LA	— Land Authority
MERALCO	— Manila Electric Company
MIA	— Manila International Airport
MTD	— Mindanao Telephone Development
NAWASA	— National Waterworks and Sewerage Authority
NEA	— National Electrification Administration
NEC	— National Economic Council
NFAC	— National Food and Agriculture Council
NHC	— National Housing Corporation
NIA	— National Irrigation Administration
NIDC	— National Investment and Development Corporation
NPC	— National Power Corporation
NSDB	— National Science Development Board
NTEIP	— Nationwide Telecommunications Expansion and Improvement Project
PACD	— Presidential Arm on Community Development
PDCP	— Private Development Corporation of the Philippines
PES	— Presidential Economic Staff
PFC	— Philippine Fisheries Commission
PHHC	— Philippine Homesite and Housing Corporation
Philcag	— Philippine Civic Action Group
Philsugin	— Philippine Sugar Institute
PNB	— Philippine National Bank
PNR	— Philippine National Railways
PSC	— Public Service Commission
RCA	— Rice and Corn Administration
SSS	— Social Security System
UNDP	— United Nations Development Programme
UNESCO	— United Nations Educational, Scientific and Cultural Organization
U.P.	— University of the Philippines
UPCA	— University of the Philippines College of Agriculture